

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 11 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0900	begin observations					
0900	Wedgetail	2			light	
0902	"	2			"	
0908	shear/petrel	2	W		} wedgetail sized	
0909	shear/petrel	1	W			
0915	Wedgetail	1	W			
0917	Wedgetail	1	W			
0923	Red-foot (?) Booby	1			adult	
0923	wedgetail	1				
0931	White-tail Tropic	1				
0934	Newell's S	1				
0935	Newell's/ Sooty Shear	3			didn't see underparts but flight right	
0937	Sooty Shear	1	E ✓			
0938	Tern sp	1				
0939	WTTB	1			flushed - tail reddish	
0940	Sooty Shear	2	✓			
0945	Common Noddy	2				
0946	Sooty shear	2	✓			
0947	"	3	✓			
0948	"	2	✓			
0949	Wedgetail	6			4 sitting on water	
0950	Wedgetail	1				
0951	Sooty Shear	1	NE ✓			
0955	Wedgetail	1			sitting	
0955	Wedgetail	1				
0958	Noddy Tern	2	SE			
0959	Wedgetail	1				
1002	Wedgetail	1				
1003	Sooty Shear	1	NE ✓			
1004	Sooty Shear	1	NE ✓			
1005	Wedgetail	4			sitting	
1006	Sooty Shear	1	✓			
1006	RFB	1				
1015	Blue-gray Noddy	1			small tern, blue gray all over	
1019	Sooty Tern	4	SE			
1022	Sooty Shear	3	NE ✓			
1024	Pom Jaegers	1			light	
1025	Sooty Shear	3	NE ✓			



DATE 11 Apr 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1029	Storm Petrel sp	1			in the sun	
1030	Wedgetail	1				
1031	Sooty Shear	1	✓		fed at once	
1035	Sooty Shear	1	✓			
1038	Sooty Shear	1	✓			
1045	Sooty Shear	1	✓			
1049	Wedgetail	1				
1050	Sooty Shear	1	✓			
1053	Sooty Tern	1				
1054	bird sp	1				
1055	Sooty Shear	2	✓		might have been S. Shear or gull - looked grayish instead of brownish, low over water, frequent flaps + short glides, larger than Pom. Jaegers	
1057	Sooty Tern	10				
	Noddy Tern	30				
	Blue-gray Noddy?	2			feeding	
	RFB	1				
	Wedgetail?	1			adult	
1059	Sooty Shear	3	✓			
1102	Sooty Shear	1	✓			
1105	Sooty Shear	4	✓			
1107	Bulwer's P.	1				
1113	Sooty Shear	1	✓			
1120	"	3	✓			
1123	"	1	✓			
1126	Sooty Tern	3				
	common Noddy	7			Feeding Flock, watch reports a fairy tern too	
	Wedgetail	5				
1130	Redfoot (?) Booby	2			Ad.	
1132	Sooty Shear	2	✓			
1135	Shearwater (?)	1	—		— Like Wedgetail in size, shape, flight but light gray on top	
1137	Wedgetail	1				
1139	"	1				
1140	Redfoot Booby	1	S		Ad.	
1141	Sooty Shear	2	✓			
1145	WT (?) Tropicbird	1				
1148	wedgetail	1				
1150	shear/petrel	1				
1205	Sooty Shear	1	✓			
1217	Wedgetail	2				
1220	"	1	—		dark phase	
1226	Sooty Shear	1				
1229	Sooty Shearwater	2	✓		Sooty Shearwater id. by capt.	
1231	com. Noddy	1	N	50'		

$$\begin{array}{r} 41 \\ 18 \\ 15 \\ \hline 90 \\ 18 \\ \hline 270 \end{array}$$

18h 37m 53s

$$\begin{array}{r} 270^\circ \\ 9^\circ \end{array}$$

$$\begin{array}{r} 9 \\ 4 \overline{) 39} \end{array}$$

$$\begin{array}{r} 15' \\ 13' \end{array} \quad 13$$

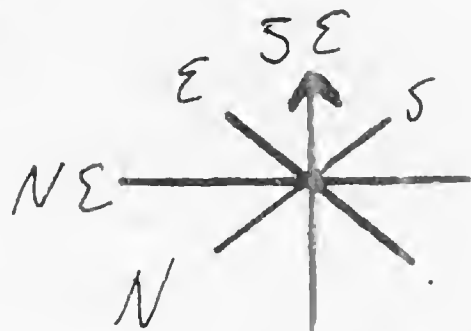
$$\begin{array}{r} 13 \\ 4 \overline{) 53} \\ 4 \\ \hline 13 \\ 12 \\ \hline 1 \end{array}$$

$$279^\circ 28' 15''$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 11 Apr 65
Pg. # 3

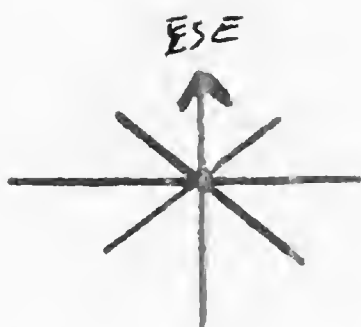


time	species	#	dir.	hgt.	remarks	loc.
1235	Sooty Shearw.	1	✓			
1240	"	2	✓			
1246	"	1	✓			
1247	Bulwer's Petrel	1	N			
1251	Wedgetail	1				
1252	"	1				
1300	Christmas Island Sh.	1	NW			
1302	Wedgetail	1				
1308	Wedgetail	1				
1312	Christmas Is Shear	1				
1320	Shear/Petrel	1				
	Fairy Tern	1				
1323	Wedgetail	1			dark	
	shear/petrel	1				
1330	shearwater	1	W		flew similar to Sooty S. but with white underparts no flaps, just arcs + glides on stiff wings. flight directional	
1341	Common Noddy	2				
1342	"	2				
1347	Wedgetail	1				
1348	Wedgetail	1				
1352	Noddy sp	4			may have been Hawaiian Noddies	
1354	Leach's P.	1				
1417	Wedgetail	1			intermediate dark	
1422	Sooty Shear	1	NE ✓			
1430	Pom. Jaeger	1				
1434	Leach's P.	1				
1445	BFA	1				
1447	Noddy Tern	1				
1452	Noddy Tern	1				
1524	Storm Petrel	1	S		— flying very direct as if going somewhere large white rump patch. seemed large	
1530	"	1	S		— Precisely the same, brownish on top with lighter brown wing stripe	
1535	Sooty Tern	2	S			
1536	St. Petrel	1	—		— this one wandering around more as they usually do	
1610	Sooty Tern	50±10			} Feeding flock just beyond where fishermen have set out a long net the Newells were sitting on water or were 2 Wedgetails the jaegers seemed to be passing through we are SW of Barber's Point going to join flock	
	Common Noddy	80±20				
	Wedgetail	25±10				
	Red-foot Booby	4				
	Newell's Shearw.	2				
207 1615	Pomarine Jaeger	2				
	Sooty Tern	5				

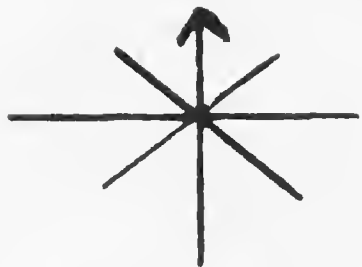
SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 11 Apr 65
Pg. # 4



time	species	#	dir.	hgt.	remarks	loc.
1617	Wedgetail	1				
1622	Sooty Shearw.	1	✓			
1637	Pomarine Jaeger	1	—	—	light phase, good plumage	
1640	"	1	—	—		
1644	Common Noddy	1	—	—		
1646	Pom. Jaeger	2	—	—	light phase	
1647	Sooty Shearw.	3	✓			
1648	"	1	✓			
1650					2 Pom jaeger I think same as above	
1654	Pom. Jaeger	2	—	—	probably different birds, these 2	
1659	Sooty Shearw.	1	✓			
1700	Pom. Jaeger	1	—	—	light phase	
1700	Com. Noddy	1				
1710	Sooty Tern	1				
1710	Red Foot B	1			adult	
1711	Wedgetail	2				
1712	Sooty Tern	2				
1713	Noddy Tern	1				
1717	Pom Jaeger	1			light	
1718	Frigate	1			diving	
1731	Wedgetail	2				
1732	Sooty shearw.	1	✓			
1735	Pom. Jaeger	1	—	—	light, follows a bit	
1738	"	5			following now, not all together	
1738	Blackfoot Alb.	1	follow			
1744					all 5 jaegers sit on water, one is dark phase	
1745	Sooty Tern	4				
1746					8 jaegers now	
1746	Sooty Shear	1	✓			
1750	Wedgetail	1				
1753	Sooty Shear	1	✓			
1757	Sooty Shear	4	✓			
1758	Sooty Tern	25				
	Noddy Tern	10				
	RFB	1				
	Pom Jaeger	5+			feeding - jaegers working over terns pretty well	
1802	Noddy Tern	2				
1804	Ch. Shear Sooty Shear	2	—			
1805	Noddy Tern	1				
1807	Sooty Shear	3	✓			
1808	Sooty Shear	2	✓			
1809	Sooty Tern	5				
	RFB	1			travelling	



DATE 11 Apr 65
Pg. # 5

time species # dir. hgt. remarks loc.

1812 Noddy Tern 35 ±2

Pomarine
Jaegers

10

RFB

1

Wedgetail

4

~~travelling~~
Feeding

1816 Sooty Shear 1

1817 Sooty Tern 1

1818 Sooty Shear 1

1819 Noddy Tern 1

1820 storm petrel 1

1824 Noddy Tern 4

1825 Wedgetail 1

1826 Noddy 3

Wedgetail

2

travelling

1828 Sooty Shear 2

1828 Leach's P. 2

1830 Noddy Tern 5

Wedgetail

1

travelling

1831 Leach's P. 2

1833 Wedgetail 1

1834 Sooty Shear 1

1836 Leach's P. 1

1837 Wedgetail 7

Sooty Tern

5

feeding

Noddy Tern

10

1843 Noddy Tern 2

1846 Noddy Tern 3

1847 Leach's Petrel 1

1848 Noddy Tern 1

1849 Sooty Shear 1

1850 Noddy Tern 4

Wedgetail

2

travelling

1851 Noddy Tern 2

1852 Noddy Tern 5

1852 RFB 1

travelling
adult

1850 1 BFA

1852 end observations

1.24

602

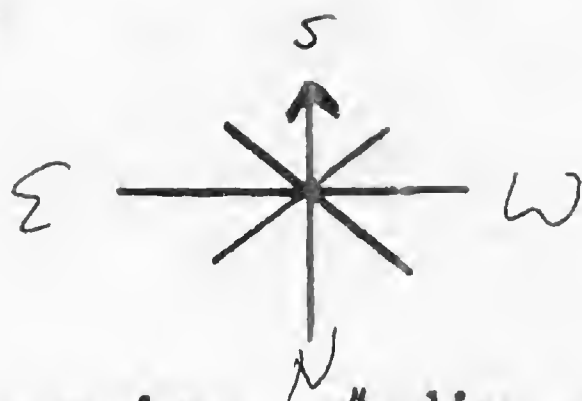
$$\begin{array}{r}
 38 \\
 95 \\
 15 \\
 118 \\
 273 \\
 80 \\
 \underline{333} \\
 602
 \end{array}$$

$$\begin{array}{r}
 6 \\
 5 \\
 6 \\
 5 \\
 6 \\
 6 \\
 5 \\
 \underline{575} \\
 31 \\
 \underline{36}
 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 12 Apr 65
Pg. # 1

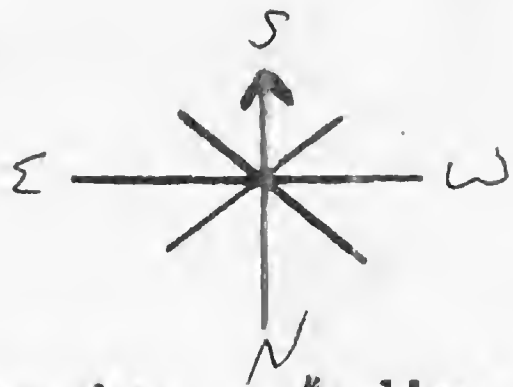


time	species	#	dir.	hgt.	remarks	loc.
0605	begin observations					
0615	sunrise				over Big Island	
0650	Blackfoot Alb.	1	follow			
0655	Sooty Tern	1				
0708	Pterodroma	1	W		— small, black top, immaculate belly + underwing	
0800	Sooty Tern	2				
0828	Wedgetail	2				
0835	Wedgetail	1				
0838	Wedgetail	1				
0842	Wedgetail	1				
0845	Wedgetail	1				
0902	Wedgetail	2				
0903	Wedgetail	1				
0933	shear/petrel	1				
0950	Leach's P.	1				
0955	Sooty Shear	1	N			
0956	Sooty Tern	1				
0959	Sooty Shear	1				
1001	Leach's P.	1				
1008	Wedgetail	1	N		— going like hell!	
1016	"	2	N			
1017	Bulwers	1				
1030	Sooty Tern	1				
1037	"	1				
1041	Wedgetail	1				
1041	Bulwers	1				
1059	Sooty Shearw	1				
1112	"	3			1000 1 BFA	
1113	Bulwers	1				
1119	Wedgetail	1				
1128	Sooty Tern	1				
1131	sooty shearw.	1				
1150	Leach's St. Pet	1				
1215	Leach's P	1				
1219	Sooty Shear	1				
1221	Sooty Shear	1	NW			
1222	Sooty Shear	2	NW			
1223	Leach's P.	2	NW			
1227	Frigate	1				

SI-MNH-958e
7-28-64

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AT SEA DAILY LOG -- E

DATE 12 Apr 65
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1228	Sooty Tern	6			Travelling	
	Fairy Tern	6				
	Noddy Tern	2				
1232	Sooty Shear	3	NW			
1233	Sooty Tern	1				
1234	Leach's P	1				
1236	Sooty Shear	1	N			
1240	Sooty Tern	2	N			
1241	Leach's P.	1				
1243	Leach's P.					
	Sooty Shear	1	N			
1248	Sooty Shear	1	N			
1251	Sooty Shear	2	N			
1254	Sooty Shear	2	N			
1257	Sooty Shear	2	N			
1258	Sooty Shear	1	N			
1259	Sooty Shear	3	N			
1300	Sooty Shear	1	N			
1305	Sooty Shear	11	N		not a flock - spread out over a few minutes	
1309	Sooty Shear	1	N			
1311	Mottled Petrel	1	N			
1314	Sooty Shear	1	N			
1316	Sooty Shear	1	N			
1318	Wedgetail	1	N			
1325	Wedgetail	1	N			
1326	Sooty Shear	1	N			
1330	SS	10	N		not flock - spread out	
1335	SS	1	N			
1345	SS	1	N			
1346	Wedgetail	1	N			
1347	SS	1	N			
1357	SS	4	N			
1358	SS	1	N			
1400	SS	2	NW			
1401	SS	1	NW			
1402	SS	2	NW			
1406	Sooty Tern	1	E			
1415	Redfoot Booby	1	land aboard		we band 757-60947 record soft parts	
1425	SS	2	N			
1434	SS	1	N			
1438	Frigatebird	1				
1439	SS	2	N			



DATE 12 Apr. 65
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
✓ 1440	SS	4	N			
✓ 1441	SS	1	N			
1444	Sooty Tern	2	S			
1444	SS	1	N			
1453	SS	1	N			
1456	SS	3	N			
1457	SS	1	N			
1503	SS	4	N			
1510	SS	1	N			
1512	SS	2	N			
1518	SS	1	N			
1523	SS	4	N			
1530	SS	1	N			
1532	SS	2	N			
1536	SS	3	N			
1545	SS	2	N			
1553	SS	3	NW			
1604	SS	1	NW			
1608	Bulwer's P.	1				
1609	SS	1	NW			
1610	Wedgetail	1	NW			
1610	Sooty Tern	1	NW			
1611	Wedgetail	1	N			
1615	SS	4	NW			
1617	SS	2	N			
1620	SS	2	N			
1630	SS	1	N			
1633	SS	1	N			
1640	SS	4	N			
1641	Bulwer's P.	1	N			
1644	SS	2	N			
1646	SS	1	N			
1650	SS	1	N			
1655	SS	1	N			
1700	SS	2	N			
1707	SS	1	N			
1711	SS	1	N			
1715	SS	2	N			
1720	SS	13	N		spread out	
1721	SS	2	N			
1736	SS	4	N			
1740	Wedgetail	2	N			
1744	SS	1	NW			
1746	SS	1	N			
1746	Sooty Tern	1	W			
1759	SS	3	N			
1802	Bulwer's P.	1				

$$\begin{array}{r} 30 \\ 21 \\ 22 \\ \hline 178 \\ 251 \end{array}$$

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
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AT SEA DAILY LOG -- E

DATE 12 April 1965
Pg. # 4

time	species	#	dir.	hgt.	remarks	loc.
1805	SS	2	N			
1806	SS	5	N		not a flock	
1809	sooty Tern	1	SW			
1812	Bulwer	1				
1812	SS	1	N			
1814	SS	2	N			
1817	SS	2				
1820	SS	4				
1827	SS	1				
1830	SS	3				
1836	SS	2				
1846	end observation					

N 10
22

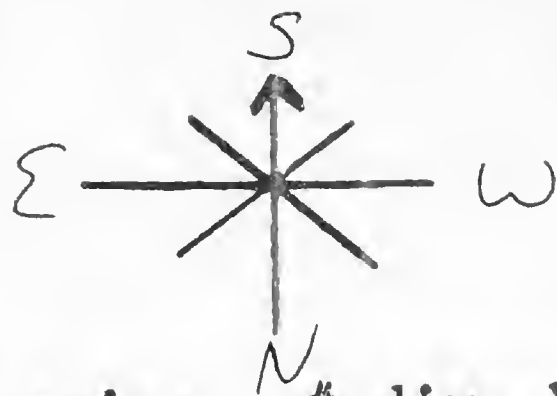
37
36
32
35
26
166

37
39
47
211
134

SI-MNH-958e

7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 13 Apr 65
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0715	shear/petrel	2			seen by watch	
0730	begin observations					
0730	Sooty Shear	1	N			
0732	SS	1	N			
0735	Leach's P.	1	N			
0740	SS	1	N			
0814	SS	1	N			
0819	SS	1	N			
0820	SS	2	N			
0821	Leach's St. Pet.	1	E			
0835	SS	2	N			
0855	SS	1	N			
0905	SS	2	N			
0907	SS	1	N			
0913	Bulwer's Petrel	1	E			
0926	SS	1	N			
0928	SS	1	N			
0957	Bulwer's Petrel	1	SW		in rain storm	
1006	Leach's P	1				
1021	Leach's P	1				
1031	Leach's P.	1				
1032	SS	1	NW			
1037	Leach's P	1	N			
1043	Bulwer's P	1				
1050	Pom. Jaeger	1	N		light	
1051	Leach's P.	1				
1107	shear/petrel	1	N		might be SS	
1115	SS	3	N			
1116	SS	1	N			
1122	Bulwer's P.	1	N			
1130	Wedgetail	1				
1131	Pom Jaeger	1	NW			
1140	Pom Jaeger?	1	NW			
1148	SS	1	N			
1156	SS	1	N			
1200	Leach's St. Pet.	1				
1202	Wedgetail	1				
1207	Leach's St. Pet	2	S			
1250	SS	1	N			
1308	SS	1	N			
1315	SS	1	N			
1316	Bulwer's Petrel	1	NE			
1351	Leach's P	2				
1354	shear/petrel	1				
1402	Sooty Shear	1				

no 24
NW-1

26

$$\begin{array}{r} 17 \\ 12 \\ 11 \\ 36 \\ 12 \\ \hline 88 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 13 Apr 65
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1407	shear/petrel	1				
1408	Bulwer's P	2				
1410	SS	1	NW			
1419	Bulwer's P	1				
1420	Wedgetail	1				
1428	SS	1	N			
1441	shear/petrel	1			all dark maybe SS	
1508	shear/petrel	2				
1555	bird sp.	1			very far	
1634	Bird sp.	1			" "	
1636	SS	1			watch reports	
1644	Red-tail Tropic	1	E		lit on water	
1647	SS ?	1				
1649	Birds	2			watch reports - confused, I can't see 'em	
1710	Bird	1			" "	
1720	Bulwer's P	1	N		" " " "	
1728	shear/petrel	1				
1735	Wedgetail	1				
1740	SS	1	N			
1745	SS	2	N			
1746	Wedgetail	1	N			
1758	SS	1	N			
1759	Wedgetail	1	N			
1805	Bulwer's P	1			fixed at	
1808	Bulwer's P	1	N			
1813	shear/petrel	1				
1816	bird	1			seen by watch	
1817	shear/petrel	1	N			
1818	Bulwer's	1				
1821	SS	1	N			
1831	SS	1	N			
1840	New Zealand Shear?	1				
1855	end observations				<p>same size as Wedgetail - tail shorter wing beats stiffer and faster, more typically shearwaterlike - greater contrast between dark grey upperparts + white underparts. Not certain but I believe it had white undertail coverts. Dark patch around the eye like JFP. Distinct W pattern on back even in fading light. Bird just out of shooting range.</p>	

new
n = 8
90

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

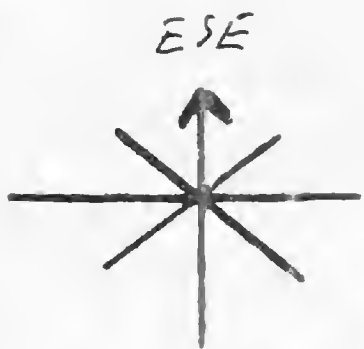
DATE 14 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0600	Tropicbird				Jan reports	
0605	Wedgetail				seen by Termite	
0609	begin observations				overcast, water fairly smooth, not much wind	
0619	Wedgetail	1			kind of "rides our low wave" in air for 2-3 minutes	
0648	Wedgetail	10±5			distant feeding flock	
	Sooty Tern	30±10				
0650	Sooty Tern	5	S		not from the above flock? traveling	
0654	Wedgetail	1				
0658	Sooty Shearwater	1	N			
0703	SS	1	N			
0706	SS	1	N			
0712	R.T. Tropicbird	1	NE			
0716	SS	1	N			
0717	SS	3	N			
0730	Wedgetail	1				
0730	Sooty Tern	2				
0813	Wedgetail	1				
	Bulwer's P	1	NE			
0815	Wedgetail	1			dark	
0819	Wedgetail	1			dark	
✓ 0820	Leach's P.	1			seen by watch	
0832	SS	2	N			
0833	Leach's P.	1				
0836	Leach's P	1				
0839	Wedgetail	2				
0845	Leach's OR	1			dark	
0847	Wedgetail	3				
0856	SS	1	N		dark	
0922	Bulwer's P	1				
0930	Leach's P	1				
0932	Wedgetail	2				
0928	shear/petrel	1			dark	
0939	Leach's P	1	N		black-tipped shark crossed bow at 0930 6' or better	
0945	SS	1	N			
0954	SS	1	N			
0955	Leach's P.	1	NE		flight very directional on rapid, continuous wingbeats	
1000	Wedgetail	1	N		dark	
1001	Wedgetail	1	N		dark	
1006	SS	1	W			
1008	Leach's P	2				
1013	Bulwer's P	1			1 hit in water - feeds on squid? - pulls at it with bill & backs away with wings & backward pull of neck. then patters a few times, sits again	

W-12
W-1
13

SI-MNH-958e
7-28-64



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DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 14 Apr. 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1020	Leach's St. Pet.	2			sure it's same pair keep circling in perhaps we stir up squid to surface	
1025	Sooty Shearwater	1	N			
1035	Leach's St. Pet.	1			in sight	
1036	S. S.	2	N			
1046	Wedgetail	1	W		dark phase	
1052	SS	1	NW			
1055	SS	1	N			
1111	Wedgetail	1	SE		light phase	
1120	Wedgetail	1			dark phase	
1120	Leach's St. Pet.					
1122	Wedgetail	2			probably still one of same ones one light one dark integrated	
1150	Bulwer's Petrel	1				
1150	Leach's St. Petrel	4			all together	
1239	Wedgetail	1			dark	
1244	Bulwer's P	1				
1247	SS	1	N			
1254	Bulwer's P	1				
1300	Bulwer's P	1				
1303	shear/petrel	1				
1308	Leach's P	4				
1310	Bulwer's P	1				
1312	SS	2	N			
1314	SS	1	N			
1318	Leach's P	1				
1320	SS	1				
1321	Bulwer's P	2				
1330	SS	2				
1339	Bulwer's P.	1				
1342	Bulwer's P	1	N			
1345	Sooty Tern	5				
	Wedgetail	4			feeding dark	
1346	SS	1				
1400	Wedgetail	1			dark	
1402	Bulwer's Petrel	1	NE			
1410	SS	1	N			
1420	Bulwer's Petrel	1	N			
1421	Sooty Tern	3	SW			
1448	Bulwer's Petrel	2				
1515	Sooty Shearwater	3	N			
1516	Bulwer's Petrel	2				
1517	Leach's St. Pet.	1				
1519	SS	1	N			
1549	Bulwer's	1				

nm = 1
n = 13

16

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 14 Apr 65
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
1615	SS	2	N			
1617	Pom Jaeger!	1				
1623	shear/petrel	1			all dark	
1624	SS	1	N			
1630	Sooty Tern	12			feeding	
	Wedgetail	5			dark	
1633	SS	1	N			
1635	Sooty Tern	3				
1640	shear/petrel	1				
1641	Bulwer's P	1				
1643	SS	2	N		dark	
1653	Wedgetail	3	SE			
	Bulwer's P	1				
1655	SS	2	N			
1659	SS	1	N			
1659	Bulwer's P.	1	SE			
1706	Wedgetail	1	ESE		dark	
1709	Leach's P	1				
1715	Leach's P.	1				
1740	Wedgetail	10±2			feeding flock	
	Sooty Tern	15±5			Wedgies seemed all dark phase	
					George saw "zhi" jump under it	
1743	Leach's Petrel	1				
1745	Sooty Shearwater	1	N			
1746	Wedgetail	1			dark phase	
1747	Leach's Petrel	1				
1750	Bulwer's Petrel	2				
1808	Sooty Shearwater	1				
1810	Wedgetail	1			seen by watch (Termite)	
1819	Sooty Shearwater	1	N			
1831	SS	1	N			
1840	Close observations				sundown	

N 12
13

$$\begin{array}{r} 36 \\ 40 \\ 27 \\ \hline 103 \end{array}$$

$$\begin{array}{r} 6 \\ 57 \\ 24 \\ 75 \\ 44 \\ 24 \\ \hline 230 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 15 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0605	begin observations					
0608	Leach's P	1				
0615	shear/petrel	2			seen by watch	
0618	SS	2	✓			
0625	Leach's P.	1				
0648	Blue-faced Booby	1			sub-adult	
0650	Pomarine Jaeger	3	N		all light	
0655	SS	1	NW			
0655	Bulwer's P	1				
0703	SS	2	NW			
0715	Newell's S.	5	NE	(1 for sure)	travelling in a widely scattered group - 1 was	
0726	shear/petrel	1		(4?)	Newell's for sure, other 4 too far to be certain but	
0730	SS	1	NW		probable.	
0750	shear/petrel	7	N		white underparts - travelling flock - too far	
0753	SS	1	NW		to tell anything more	
0809	SS	2	NNW			
0809	wedgetails	2				
0810	Birds	2			far horizon	
0811	Leach's St. Pet.	1				
0820	Sooty Tern	25 ± 25			feeding flock, large fish jump underneath	
	Wedgetail	10 ± 5			Termite says were skipjack	
0837	Sooty Tern	1				
0837	wedgetail	1			light ph.	
0840	Sooty Shearwater	1	NNW			
0850	sooty Tern	25 ± 5	N		moving more than feeding, perhaps not feeding at all	
	wedgetails	2			may have been more wedgetails	
0855	Leach's St. Petrel	1				
0902	wedgetail	1	S		dark ph.	
0945	Sooty Shearwater	1	N			
0958	SS	1	NW			
1030	Leach's P	1	NW			
1031	Leach's P	1				
1038	Sooty Tern	18			dark	
	wedgetail	1			fed then spread	
	Pom Jaeger	1			light	
1052	SS	1	NW			
1055	SS	1	NW			
1108	wedgetail	1			dark	
1125	Sooty Tern	4				

$$\begin{array}{r} 21 \\ 42 \\ 252 \\ 10 \\ 15 \\ \hline 360 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 15 Apr 65
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1141	Wedgetail	2	NW		light - flying with Wedgetails	
	SS	1	NW			
1145	Sooty Tern	2				
1146	Sooty Tern	5			moving	
1150	Jaeger probably Jaeger	1	on water		Termite says he saw "skua-like" bird with white patch on head ?? Imm. bull ?? I didn't see it.	
1305	Sooty Shearwater	2	NW			
1306	Sooty Tern (?)	3			in extreme distance (could be flock)	
1308	Sooty Tern	8			} high, scattered, hunting flock } closer, compact group 5 dark, 1 light	
	Wedgetails	6				
1315	W.T. Tropicbird	1				
1318	Sooty Tern	35 ± 5			} Feeding flock, Wedgetails light in water } skipjack jumping	
	Wedgetail	7				
1332	Sooty Tern	20 ± 10			} Feeding (?) flock in distance - probably all dark	
	Wedgetail	5 ± 5				
1347	Leach's St. Pet.	2				
1350	Sooty Tern	3			} Feeding (?) probably all dark	
	Wedgetail	2				
1402	shear/petrel	1				
1430	Christmas Is Shear	1				
1450	shear/petrel	1				
1452	shear/petrel	1				
1610	Jaeger	1	N	low	moving steadily	
1613	Sooty tern	6	SE	high	" "	
1620					school at least 12 porpoises, short, very thick, black blunt-nosed looking as they breach. They don't come close.	
1628	Jaeger	1	N			
1630	Leach's St. Petrel	1				
1656	Sooty Shearwater	1	NNW			
1727	W.T. Tropicbird	1				
1747	Sooty Tern	47			dark feeding	
	Wedgetail	2				
	Newell's S.	1				
1755	SS	4				
1808	shear/petrel	1	N		might have been Mottled Petrel	
1824	SS	1	N			
1828	Pom Jaeger	1	NW			
1829	shear/petrel	1				
1830	Leach's Petrel	1				
1833	end observations					

$$\begin{array}{r} 5 \\ 7 \\ 5 \\ 14 \\ 296 \\ \hline 54 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 16 Apr 65
Pg. # 1



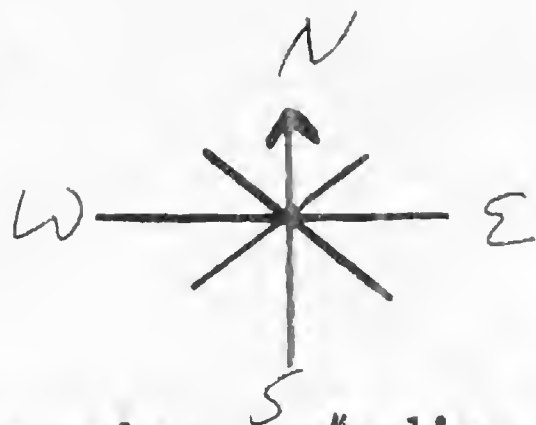
time	species	#	dir.	hgt.	remarks	loc.
0555	begin observations					
0602					apparent sunrise - clear, smooth day	
0614	R.T. Tropicbird	1	NW		took off from water	
0628	Leach's St. Pet.	1	NW		" " " " at one of the "surface calm" zones	
0631	Wedgetail	1	W		light phase	
0639	Sooty Tern	1	SE		seen by watch	
0645	Wedgetail	1	NW W		light	
0648	Shear/Petrel	1			distant	
0654	Leach's St. Pet.	1				
0704	Sooty Tern	1	S			
0709	Wedgetail	1			light	
0714	Sooty Tern	2	S			
0730	Sooty Tern	1				
0746	Wedgetail	2			seen by watch	
0802	Sooty Tern	1	S			
0808	Shear/Petrel	1	S		all black - large, slow, loose wingbeats	
0822	Tern sp.	1	S			
0930	SS	1	N			
0940	Leach's P	1				
1000	Pom Jaeger	1	NW			
1008	Wedgetail	1			light dark	
1030	Sooty Tern	20±10			feeding flock about 2 mi away one white body	
	Wedgetail	10±5				
	Pomby Fairy Tern	1				
1039	P Tropicbird	1			distant	
1040	Pom. Jaeger	1	SE?			
1101	Bulwer's Petrel	1				
1120	Sooty Tern	23±3			feeding flock one Wedgetail dark phase	
	Common Noddy	5±1				
	Wedgetail	3±1				
1133	Leach's St. Pet.	1				
1134	Sooty Tern	1	E			
1155	Leach's St. Petrel	1				
1201	Shear/petrel	2			sitting on water - all dark	
1204	Sooty Shear	2	NW			
1217	SS	4	N			
1220	SS	2	NW			
1227	SS	34				
1240	Sooty Tern	65±5			sitting on water	
	Wedgetail	20±2			feeding flock	
	Sooty Shear	2±				

11

19	5
89	37
94	31
196	33
398	6

Fe 20
N 2
NW 4

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

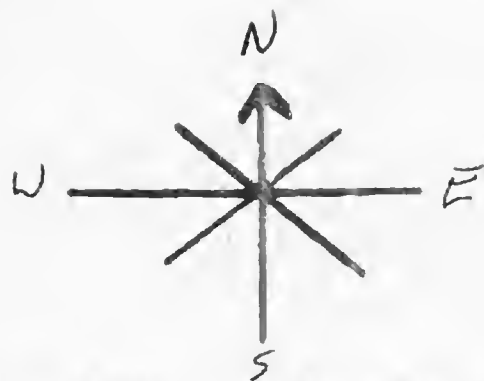
DATE 16 Apr 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1243	shear/petrel	1				
1245	Leach's P	1				
1250	Sooty Tern	15	±2		feeding	
	shear/petrel	3+			flushed in group	
1251	Leach's P	3			light	
1253	Wedgetail	3				
1253	SS	4	NW			
1253	Sooty Tern	3				
1254	SS	1	NW			
1256	Sooty Tern	2				
1300	SS	1	N			
1312	Sooty Tern	5				
	Wedgetail	1			light feeding	
	Pom Jaeger	1			light	
1315	Sooty Tern	12			feeding	
	Frigate	1			fired at 5 times - hit slightly once - directly overhead adult ♂	
1325	SS	1				
1330	SS	1				
1335	Bulwer's P	1			Sooty Ternite	
1345	Sooty Tern	9			traveling	
1352	Wedgetail	1			light - fired at 2 times - scared him pretty bad.	
1353	Bulwer's P	1				
1357	bird	1			seen by Ternite	
					small, Tern or Bulwers	
1400	SS	1	NW			
1401	Wedgetail	1			fired at 5 times	
	Bulwer's P	1				
1402	Wedgetail	1				
1405	SS	1	NW			
1406	Leach's P	1				
1407	SS	1				
1410	SS	1	NW			
		1	NW			
1420	Sooty Tern	2	S			
1426	Leach's St. Pet.	1				
1428	Sooty Tern	1	E			
1444	Sooty Tern	6			Leach's at edge	
	Wedgetail	2			flock loose not observed to actually feed	
	Leach's	1				
1502	Pom. Jaeger	1	W		light	

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

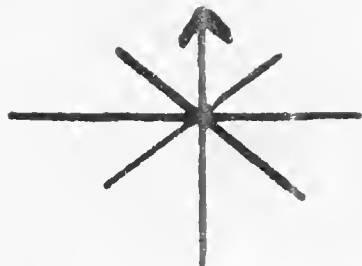
DATE 16 Apr 65
Pg. # 3



time	species	#	dir.	hgt.	remarks	loc.
1509	Leach's SP	1		on water		
1510	Sooty Tern	2				
1511	Mottled Petrel	1	N		pretty fair look, quite gray top, wings darker belly white, but I had impression of dark near rear ventral	
1528	Sooty Tern	1	S			
1530	Tern (?)	1			far horizon	
1534	Leach's St. Pet.	2		on water		
1542	Bulwer's Pet	1				
1546	Wedgetail	1			dark ph.	
1547	Wedgetail	2				
1555	shear/petrel	1				
1600	Sooty Tern	10				
	Fairy Tern	1			travelling	
1603	Pom Jaeger	2			light - one flushed	
1604	Wedgetail	1			light	
1605	Leach's P	1				
1610	bird	1			sitting in water 1/2 mi + from ship	
1611	Leach's P	1				
1614	Frigate	1				
1615	Pom Jaeger	1	N		light	
1619	SS	2	NW			
1620	Leach's P	1				
1620	bird	1				
1622	Sooty Tern	1				
1630	SS	1				
1633	Bulwer's P	1	N			
1635	Sooty Tern	1				
	Pom Jaeger	2			feeding	
	Wedgetail	1				
	shear/petrel	1				
1636	Leach's P	1				
1638	Bulwer's P.	2				
1645	Sooty Tern	2	S			
1650	SS	4	NW			
1655	SS	4	N			
1656	bird	1				
1657	Leach's P	1	N			
1658	Pom Jaeger	1	N		light	
1701	Leach's P	1				
1712	SS	2	N			
1740					8 to 10' white-finned shark surfaces, near Hydro activity	
1802	Xmas Is. Shear.	1	W			
1805	SS	1	NW			

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 16 Apr 65
Pg. # 4

time	species	#	dir.	hgt.	remarks	loc.
1810	Sooty Tern	6			feeding light	
1811	Wedgetail	2				
1817	Newell's	1				
1823	Leach's P	1				
1825	Sooty Tern	8	S		travelling	
1830	Bulwer	1				
1831					sunset	

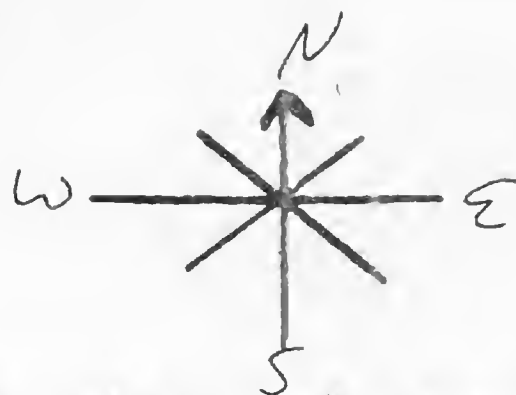
1812 needlefish about 8" flushed
+ flew for a few feet.

$$\begin{array}{r} 28 \\ 55 \\ 241 \\ 22 \\ 10 \\ 31 \\ 10 \\ \hline 397 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0545	Wedgetail	1			before sunrise	
0542	Begin observations					
0626	shear/petrel	1			white underparts - large	
0630	Leach's P	1			light	
0635	Wedgetail	1				
0637	Bulwer's P	1				
0640	Sooty Tern	1				
0642	Wedgetail	1			light	
0650	Wedgetail	1			light	
0651	Sooty Tern	3				
0655	term sp -	1			either Noddy or imm Sooty	
0702	Bulwer's P	1				
0708	Bulwer's P	1				
0745	Wedgetail	1				
0746	shear/petrel	1				
0748	Sooty Tern	1				
0813	Sooty Tern	3	S			
0815	Sooty Tern	5	S		moving directly	
0825	Frigate bird	1			" "	
0828	Sooty Shearwater	1	✓		distant	
0836	Sooty Tern	2	SW			
0910	Sooty Tern	1				
1001	Wedgetail	1				
1002	R. L. P. Phalarope	1	NNE	12'		
1010	Bulwer's P	1				
1020	Fairy Tern	1				
1040	WTTB	1				
1042	Sooty Tern	3				
1044	SS	1	NW			
1110	Bulwer's P	1				
1111	Wedgetail	2			light	
	Bulwer's P	1				
1113	SS	2	NW			
1116	SS	2	NW			
1121	Leach's Petrel	1				
1130	Sooty Tern	85	I 25		feeding in distance	
	shear/petrel	15 ± 10				
1139	Fairy Tern	1				
	Frigate	1				
1150	SS	1	NW			
1155	Sooty Tern	35 ± 5				
1155	Sooty Tern	35 ± 10			feeding	
	Fairy Tern	1				
	shear/petrel	1+				

4-6
A-

49
453
188
690

35
28
20
83

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 Apr 65
Pg. # 2

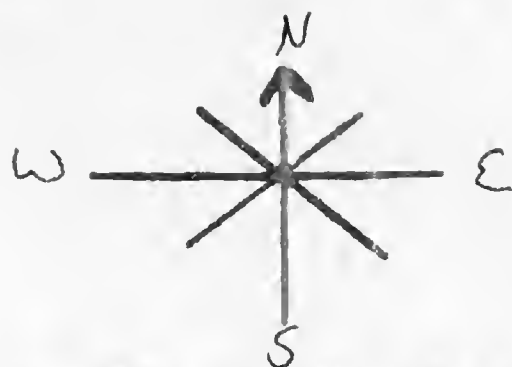


time	species	#	dir.	hgt.	remarks	loc.
Noon	Sooty Tern	50 ± 15			feeding flock	
	Fairy Tern	3				
	Wedgetail Shear.	12 ± 5				
1203	Sooty Tern	2				
1216	Leach's St. Petrel	1				
1248	Shear./Petrel	2	W		distant, high arcs	
1318	Sooty Tern	10 ± 2			circling flock, not actually observed to pull close to feed	
	Wedgetail	4 ± 1				
1324	Bulwer's Petrel	1				
1345	Shear/petrel	3				
1347	sooty Tern	2			seen by watch watch	
1402	SS	2	NW			
1412	Shear/petrel	1	NW			
1420	shear/petrel	1	NW		} distant t. might have been SS	
1440	Frigate	2				
1449	Mottled P.	1	N		dogfighting	
1500	Sooty Tern	35 ± 10			seen quite clearly - arcing high + humpbacked	
	Noddy Tern	15 ± 5				
	Wedgetail	15 ± 5			feeding	
	Fairy Tern	4				
	Newell's S.	2				
1510	SS	4	N			
1515	Sooty Tern	75 ± 25			feeding in distance	
	shear/petrel	25 ± 10				
1525	Sooty Tern	75 ± 25				
	shear/petrel	15			feeding	
	Fairy Tern	1				
1528	Bulwer's P	1				
1529	Mottled P	1	N			
1530	tern spp	1	N		good look	
1531	SS	4	N			
1535	Sooty Tern	60 ± 5				
	Fairy Tern	3			high then dropped to feed	
	Wedgetail	20			near flock	
1536	Leach's P	1				
1540	SS	1	NW			
1543	SS	1				
1547	SS	1				
1552	SS	1				
1555	SS	1				

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 Apr 65
Pg. # 3



time	species	#	dir.	hgt.	remarks	loc.
1600	Sooty Shearwater	1	✓			
1601	shearwater/Petrel	1				
1610	Leach's P	20			no feeding activity noted - flock fairly tight not flying very directionally - looked like they were hunting but no oil slick or dead things seen. V in shot 1 Leach's Petrel 1615 - started to drizzle just after the flock - maybe it was a storm dance they were performing # 0518 19°48'N 154°00'W 85x3 2 1/2 x 2	
	Bulwer's P	3				
1627	sooty Tern	3				
1640	RT Tropicbird	2			disturb , dives at times	
1647	Newell's Shearwater	1	W			
1650	Wedgetail	1			light	
1652	wedgetail	1			"	
1653	Bulwer's Pet.	1				
1659	wedgetail	2			light	
1705	Bulwer's Petrel	1				
1718	Bulwer's	1				
1720	Sooty Tern	3	W			
1721	Leach's St. Petrel	1	S		skimming, water walking	
1722	Bulwer's	1				
1729	Leach's S. P.	1				
1805	Wedgetail	2			light	
1810	Leach's P	1			} seen by watch	
1812	Bulwer's P	1				
1830	Leach's P	1				
1835	end observations					

$$\begin{array}{r}
 15 \\
 64 \\
 16 \\
 455 \\
 14 \\
 66 \\
 27 \\
 17 \\
 \hline
 674 \\
 15 \\
 \hline
 689
 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 18 Apr 65 Easter
Pg. # 1

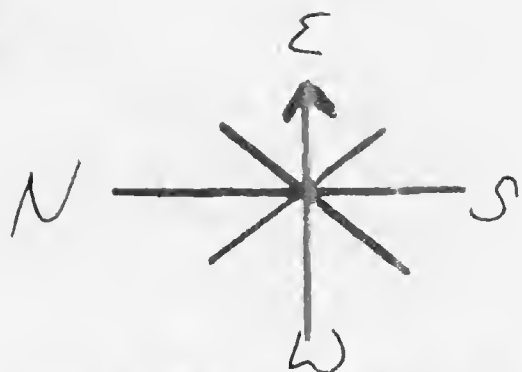


time	species	#	dir.	hgt.	remarks	loc.
0530	BFA	1			seen by watch	
	rabbit	1			large, white seen by watch	
0557	begin observations					sun apparently already up
0615	Wedgetail	2	SW		light	
0622	Bulwer's Pet.	1				
0630	Sooty Tern	5	W		traveling	
	Wedgetails	2				
0631	shear/Petrel	1			light distant	
0633	Pom. Jaeger	1	W		light	
0635	Sooty Tern	1	E			
0635	Wedgetail (4)?	2			dist.	
0638	Tern	1			dist.	
0648	Mottled (8) Petrel	1			Ternite sees & identifies, I don't.	
0652	Bulwer's Petrel	1				
0745	Sooty Shearw.	1			seen by watch	
0758	Mottled Petrel	1	SE		I saw this one well	
0815	Sooty Tern	1				
0815	shear/petrel	1				
0816	Newell's S	1				
0816	Sooty Tern	1				
0817	shear/petrel	1				
0830	Wedgetail	1			light	
0845	shear/petrel	1	NW			
0915	Wedgetail	1				
0925	jaeger sp	1			light	
0932	tern sp	1	all dark		Probably Longtailed - nice light phase with grey back & wings, white neck & black cap. Tail medium long, slender central rectrices protruding 4" + all white underparts flushed from water.	
0945	Leach's P	1	N			
1013	Leach's St. Pet.	2				
1024	Blackfoot Alb.	1	Follow			
1100	Blackfoot Alb.	2			Z now	
1101	Wedgetail	1	N			
1116	Sooty Shearwater	1	N			
1140	Laysan Albatross	1	E			
1230	SS	1	N		1315 2 BFA & 1 Laysan	
1258	SS	1	N		1330 1 BFA caught & banded #757-60943 23°30'N 154°00'W fully feathered brood patch completely black rump.	
1420	Phalarope	1	S?		1345 3 BFAs now sitting near ship	
1515	shear/Petrel	1			distant	
1612	Mottled P.	1	N		very close - maybe flushed	

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 18 Apr 65
Pg. # 2



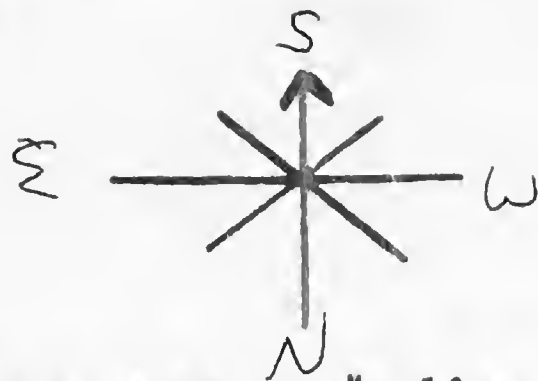
time	species	#	dir.	hgt.	remarks	loc.
1625	Sooty Tern	75	±15		feeding at a distance	
	shear/petrel	15	±10			
1650	Pom Jaeger	1	W		light with prominent r. elvies	
1655	Mottled P.	1			1700 MST5 Ship passed at 8 miles - impossible to see albatross at that distance	
1710	Sooty Tern	2				
	Jaeger sp	1			Jaeger chasing Terns up & down & around	
1715	SS	1	NE			
1716	Leach's P.	1				
1718	SS	1	NE			
1725	SS	1	NE		1730 1 BFA	
1800	Mottled P	1	N			
1802	Sooty Tern	4	N		} Flock moving	
	Shear/Petrel	1				
1804	Sooty Shearwater	1	NW			
1807	Newell's Shearw.	1	S			
1815	Leach's St. Pet.	1				
1816	Sooty Shearwater	2				
1817					whale?	
1818	Sooty Shearw.	1				
1818	Sooty Tern	3	W			
					1838 hrs. 4 BFA	
1840	CEASE OBSERVATIONS SUN EXTINGUISHED!					

$$\begin{array}{r} 35 \\ 92 \\ 21 \\ 11 \\ \hline 159 \end{array}$$

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 19 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0537	begin observations					
0540	BFA	1				
0543	tern sp	1				
0600	Leach's Petrel	1				
0630	jaeger sp.	2	NW		small type jaegers. - grey brown above - whitish below - did not have the fine plumage of the bird of the 18th, nor lengthy central rectrices	
					0650 2 BFA	
0730	Frigate	2				
0750	Leach's P	1				
0813	Leach's St. Pet	1				
0814	Wedgetail	1	SW		dark	
0822	Leach's St. Pet.	1			watch reports	
0827	Bulwer's Petrel	1	SW			
0850	Leach's St. Pet.	1				
0856	Sooty Shearwater	1	W			
0859	Leach's St. Pet.	1				
0907	Leach's	1				
0942	Leach's	1				
0959	Sooty Shearwater	1				
1033	Leach's P	1				
1050	jaeger sp	1				
1055	Frigate	1			looked like small type - fairly far	
1100	Laysan A.	1				
1105	Leach's P	2				
1150	Leach's P	1	NW	20'	1 collected by King #0519 constant flapping, flight directional - flying higher than normal	
1201	Leach's St. Pet.	1				
1215	Sooty Shearwater	1				
1248	Gr. Frigatebird	2	circle	1/4 mi.	1 Ad. ♀, 1 Imm. ♀	
1305	Pom. Jaeger	1			observed persistently chasing, even occasionally seeming to peck back at the Imm. ♀ Frigate mentioned above 20-50' above water as they go around & round. Jaeger's tail spread out full.	
1359	Sooty Shearwater	1				
1420	Sooty Tern	1	NW			
1440	Sooty Shear	1	NW			
1457	RTTB	1			flushed - pinkish	
1532	Sooty Tern	10				
	Pom Jaeger	1			feeding - PT chasing the terns	
					1400-1600 0 BFA	

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 19 Apr 65
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1554	Pom Jaeger	1	NW			
1559	SS	1	NW			
1650	Newell's Shear.	1	SW		Beautiful, bright white belly	
1658	Leach's St. Pet.	1				
1700	Leach's	4	in water		all take off + scatter but were very close in water	
1810	Pom Jaeger	1			1625 1 BFA dark rump	
1825	Herald's P.?	1			1800 2 BFA nearly Wedgetailed size - dark upperparts dark brown upper breast, lower breast abdomen white. Underwing had white along center, outer edge dark of uncertain thickness. flew close by bow on fairly stiff wings - fired thrice but no luck. almost came back again but wheeled + fell astern.	
1830	end observations					

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 20 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0536	begin observations					
0600	Blackfoot Albatross	1			first observed	
0606	Sooty Shearwater	1	NW			
0722	Sooty Shearwater	1	N			
0810	Bulwer's P	1				
0820	Bulwer's P	1			seen by watch	
0835	SS	1	NW			
0841	Tropicbird sp	1			seen by capt	
0915	Leach's P	1				
0937	Bulwer's P	2				
0945	Sooty Tern	1				
0948	Leach's P	2				
1101	Wedgetail	2			light	
1105	Sooty Tern	5		very		
1138	Bulwer's Pet.	1				
1205	Sooty Tern	25 ± 2				
	tern sp	1			small, light grey-white - not Fairy Tern - being	
	Jaeger sp	1			chased by Jaeger	
	Wedgetail	2			light feeding	
	Sooty Shear	2				
1205	Tropicbird	1			seen by capt.	
1305	SS	1	NW			
1310	Newell's S	1	NW			
1331	Frigate	1				
1355	SS	1	NW			
1357	Bonin Is. P? or Newell's S?	1	NW		blackish back, all white underparts - fast, high arcs -	
1420	Sooty Shearwater	1				
1427	Sooty Tern	1				
1432	Sooty Shearwater	1				
1433	Mottled Petrel	1				
1442	Shear. / Petrel	1				
1450	Newell's Shear.	1	SW?			
1506	Sooty Tern	1	SW			
1602	Newell's S	2	NW			
1630	SS	1	NW			
1642	Leach's P	1				

1500 1 BFA

10

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



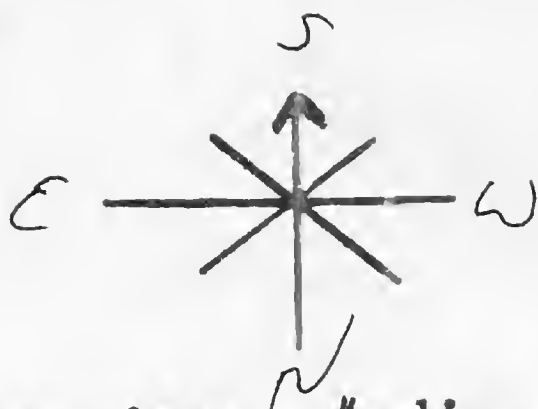
DATE 20 Apr 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1705	Leach's P	1				
1706	Kermadec P	1	N		dark phase	
1712	bird sp	1				
1728	Bulwer's P	1				
1733	Leach's St. Pet.	1				
1809	Leach's St. Pet	1				
1830					sun down. Observations suspended till reappearance	

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 21 Apr 65
Pg. # 1



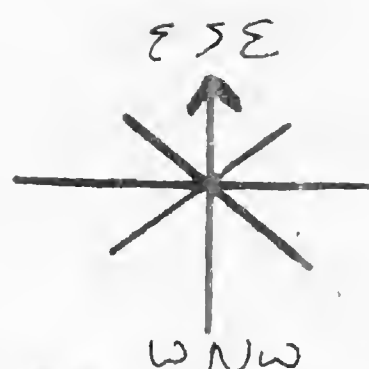
time	species	#	dir.	hgt.	remarks	loc.
0535	begin observations					
0552	Wedgetail	2	NW		light	
0630	Sooty Shear	1	NW			
0637	shear/petrel	1	NW		- white underparts - wedgetail sized	
0640	Sooty Shear	1	NW			
0658	Newell's S.	1	NW			
0659	Arctic Tern	1	N		blood red bill, light grey mantle black cap	
0712	Leach's P	1				
0714	Leach's P	2	NW			
0716	Wedgetail	2			light	
0725	Wedgetail	1			light	
0735	Leach's P	1				
0745	tern sp?	1			seen by watch - might have been Arctic Tern	
0747	Juan Fernandez Petrel	1	S			
0755	Sooty Tern	1	NW			
0802	shear/petrel	2				
0810	shear/petrel	1				
0811	Sooty Tern	1	N			
0834	Newell's Shearw.	2	NNW			
0837	Sooty Tern	14	}		Feeding flock	
	wedgetail	3				
0838	Sooty Tern	1	N			
0843	Sooty Tern	1	W			
0902	shear/petrel	1	NW			
0950	wedgetail	1	W			
0958	Sooty Tern	1	NW			
1026	Sooty Tern	1				
1035	Sooty Tern	1				
1232	Sooty Tern	1				
1420	Sooty Shear	1	NW			
1650	Shear/Petrel	1	NW		Far distant probably Sooty Shear	
1653	Sooty? Shearw.	2	NW		" "	
1702	Sooty Tern	4	SW			
1703	Pomarine Jaeger	1	N			
1721	Leach's St. Pet.	1	on water			
1732	shear/petrel	1			may have been dark phase Kermadec P.	
1734	Newell's S.	1	N			
1736	Bulwer's Petrel	1				
1743	Wedgetail	1				
1753	shear/petrel	2				
1818	shear/petrel	2			distant 1820 Sooty Tern 1822 end observations	

SI-MNH-958e

7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 22 Apr 65
Pg. # 1

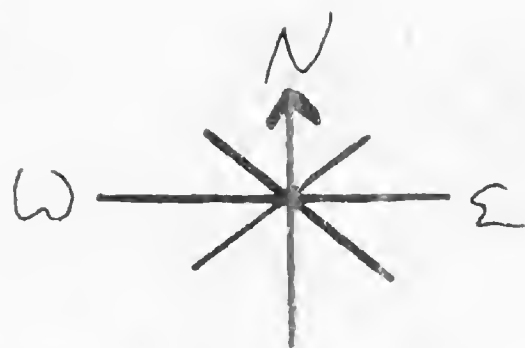


W NW

time	species	#	dir.	hgt.	remarks	loc.
0400	Newell's Shear	1			seen by watch (Termite) in lights	
0538	begin observations					
0538	Sooty Tern	2				
0545	San Fernandez	1	N		white undertail coverts plain	SUNUP ABOUT NOW
0620	Sooty Tern	2	N			
0624	Sooty Shearwater	2	NW			
0658	Bird	1			seen by Termite	white petrel-like, light gray on top with thin black edge on upper side of wings. Wedgetail size.
0830	SS	1			gull sp?	
0850	JFP	1				
0854	SS	1				
1040	Shearwater/Petrel	1			distant	
1109	Leach's St. Pet.	1				
1111	Leach's St. Pet.	5	}		not observed to feed, but may've been	
	Bulwer's Petrel	2				
1112	Leach's St. Pet.	1				
1115	Bulwer's Petrel	1				
1320	Sooty Tern	2				
1324	Blue-faced Booby	1			1 or 2 brown feathers seen in upper wings - otherwise adult plumage	
1334	Shear/Petrel	1			all dark - flying very fast - seen by Howard	
1350	Sooty Tern	20 ± 2				
	Fairy Tern	1				
	Jaeger	1			feeding	
	Blue-faced Booby	1			4" central rectrices pointed - greyish-dark above, lighter below	small type, perhaps LJS intermediate phase
					most likely same as 1324	
1400	Sooty Tern	10 ± 2			travelling	
	Wedgetails	2				
	tern sp	1			might have been Noddy	
1433	Sooty Shearwater	4	NNW			
1446	Blue-faced Booby	1			different subadult. Much dark plum back, head, tail	
1536	Leach's St. Pet.	1			Follow till 1516 (chased couple flying fish) Finally lights on water	
1558	Leach's St. Pet.	1				
1617	SS	4	NW			
1635	Tropicbird	1				
1637	SS	4				
1650	Dark-rumped P.	1	N			
1655	Shear/Petrel	1			very dark back, fairly pronounced black edges to underwing	
1705	Bulwer's P.	1				
1715	Wedgetail	1	N		dark	
1815					SUN DOWN	QUIT

SI-MNH-958e

7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E.

DATE

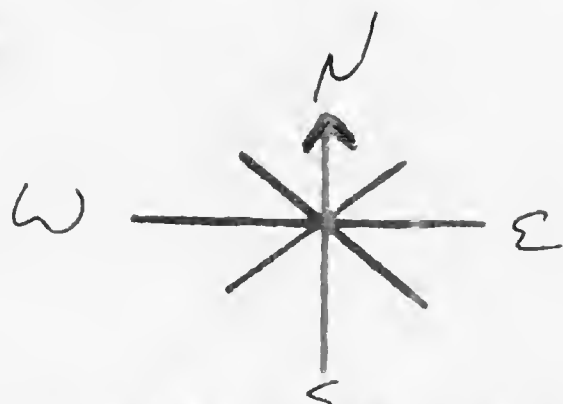
23 Apr 65

Pg. #

1

time	species	#	dir.	hgt.	remarks	loc.
0540	sunrise?					
0545	begin observations					
0600	Juan Fernandez P.	1			rather looking body plumage	Rattus sp.
0610	JFP	1				
0657	Sooty Shear	1	NW			
0658	Leach's P	1				
0717	JFP	1				
0722	JFP	1				
0724	JFP	23			body molt on both	
	shear/petrel?				fairly broad white nape on one	
0729	shear/petrel	1			dark above, white below - upper breast not seen - large & chunky - not JFP or Wedgetail	
0753	JF Petrel	1	S			
0817	Leach's St. Pet.	1				
0819	J.F. Petrel	2	up from water			
0822	Wedgetail	1			light phase	
0825	Leach's St. Pet.	1				
0835	Leach's St. Pet.	1				
0837	Blue-face Booby	1	N		imm.	
0905	Sooty Tern	1	W			
0925	Leach's St. Petrel	1				
0943	J.F. Petrel	1			Flashes from water by ship carrying 12" long squid(?) in beak.	
1004	Sooty(?) Shearwater	1	NW		sits down 100' away	
1010	Sooty Shear	1	NW			
1017	shear/petrel	1			white underparts - large	
1025	Sooty Tern	1				
1035	Leach's P.	1				
1045	shear/petrel	1				
1047	shear/petrel	1				
1105	JFP	1			mottled brown back, almost no dark underwing edge.	
	Dark-rump P.	1			flushed from water -	
		1			dark back, thick black underwing edges	
1135	Sooty Tern	1			Drp flushed first - seemed to avoid ship more determinedly	
1137	RTTB	1			flushed	
1146	shear/petrel	1			medium - dark above, white below	
noon	Leach's S.P.	2				
1255	Sooty Tern	2	E			
1258	Sooty Tern	20±5			Feeding flock in dist.	
	Shear/Petrels	5±2				
1315	Sooty Tern	40±10			maybe other things too, feeding, too far for	
1328	Wedgetail	1	S		light	
	J.F. Petrel	1				
1400	Sooty Tern	25±2			feeding	

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 23 Apr 67
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1403	shear/petrel	1			seen by watch	
1414	shear/petrel	1				
1415	JFP	1				
1435	Leach's P	4	W			
1445	Sooty Tern	2				
1449	Sooty Tern	50 ± 10			feeding at a distance	
	shear/petrel	5+				
1450	shear/petrel	1				
1514	Pale-footed Shear	1	N		large white bill - large bulky all dark including underwing - flight unhurried even in high wind.	
1525	Sooty Tern	3				
1527	Bulwer's P	1				
1531	JFP	1				
1550	Leach's P	1	N			
1715	shear/Petrel	1				
1736	Wedgetail	1				
1740	JFP	1			light	
1750	shear/petrel	2	NW		JFP or Wedgetail	
1758	JFP	1				
1805	end observations					

$$\begin{array}{r} 11 \\ 145 \\ 16 \\ 13 \\ \hline 21 \\ \hline 206 \end{array}$$

SI-MNH-958e
7-28-64

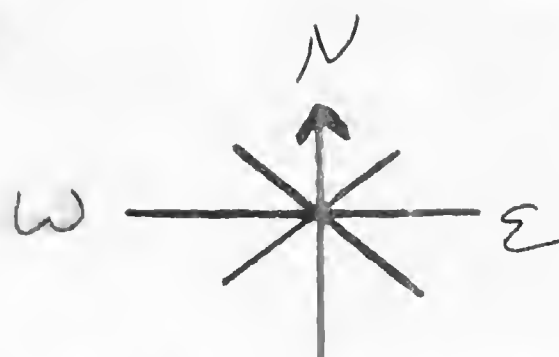
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 24 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0555	begin observations					
0615	Leach's St. Pet.	2				
0641	Leach's St. Pet.	1				
0658	Leach's St. Pet.	1				
0701	Sooty Tern	3	E			
0705	Sooty Tern	8			moving around, not feeding	
0717	Wedgetail	1			dark	
0726	Juan Fernandez P.	1	N			
0732	Sooty Tern	20-25			feeding flock	
	Wedgetail	1			light	
0823	Sooty Shear	1	NW			
0840	Leach's P	1	NW			
0847	JFP	1				
0905	shear/petrel	1				
0906	Leach's P	1				
0942	Wedgetail	1	NW		light	
0952	Leach's P	1	NW			
1110	Sooty Tern	1				
1115	Shear/Petrel	1			seen by winchman during Hydro sta.	
1150	Leach's St. Pet.	1				
BWP 1220	Cook's Petrel	1	NW			
1238	Leach's St. Pet.	1				
1240	Bird	3			on horizon (portion of flock?)	
1300	Sooty Tern	10				
1355	RTTB	1			feeding? sitting	
1605	Leach's St. Pet.	1				
1606	SS	1	N			
1611	Newell's S	1	NW			
1722	Wedgetail	1			light	
1810	end observations					

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 25 Apr 65
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0500	RFB?	1			all brown - probably RFB imm. - seen by watch	
0515	Leach's P	1			seen by watch	
0528	begin observations					
0545	Blue-faced Booby	1			subadult - white head & neck - wings + back brown with white flecks.	
0655	Jaeger sp	1			not sure of size	
	WTTB	1			Jaeger chased tropicbird up & down for a minute or so, then gave up.	
0710	Leach's P	3	NW			
0756	Sooty Shear	1	NW			
0845	Leach's St. Pet.	1				
0949	Wedgetail	1			light phase	
1000	Leach's St. Pet.	1				
1055	tern sp.	1	N		maybe been Arctic Tern - too far	
	shear/petrel	1	N		may have been Sooty Shear.	
1245	R.T. Tropicbird	1				
1525	Leach's P	1				
1538	Leach's P	1				
1608	shear/petrel	1				
1702	R.T. (?) Tropic	1	on water			
1706	Phalarope	1	"			
1713	Pale-foot Shearwater	1	NE		saw pale bill. Wedgetail-sized	
1739	Leach's P.	1	NW			
1752	Leach's P.	1				
1758	Leach's P.	1				
1802	Leach's P	1				
1815	end observations					

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 26 Apr 65
Pg. # 1

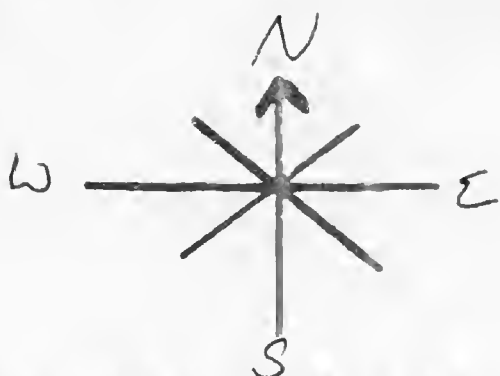


time	species	#	dir.	hgt.	remarks	loc.
0605	begin observations				sun long up	
0642	storm Petrel	1	W		poor look, very fast flight	
0736	Leach's St. Pet.	2			George saw 'em	
0810	Jaeger sp?	1	W		distant	
1028	Leach's St. Pet.	1				
1043	Leach's St. Pet.	1				
1055	Leach's St. Pet.	1				
1129	R.T. Tropicbird	2			up from water	
1143	Leach's St. Pet.	1				
1307	Leach's P	1				
1309	Sooty Tern	1	S			
1310	Leach's P	1				
1315	Sooty Tern	1	S			
1350	shear/petrel	1			flushed - seen by by watch	
1420	Leach's P Arctic Tern	2			one hovered, dived, turned & joined mate	
1421	Leach's P.	1				
1530	Bulwer's Petrel	1	NE			
1602	Bulwer's Petrel	1				
1632	Leach's Petrel	1				
✓ 1640	Arctic Tern	4			hovering, diving repeatedly, circling	
1658	Bulwer's P	1				
1700	Arctic Tern	2			hovering, diving etc - came close enough for shot but apparently no hits.	
1800	Leach's S. P.	1				
1812	Bulwer's Sooty Shearwater	2	N		bad light, Flaps heavily	
1820	end observations					

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 27 Apr 65
Pg. # 1



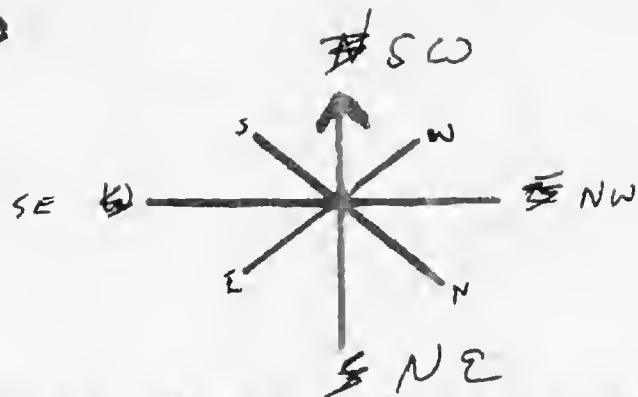
time	species	#	dir.	hgt.	remarks	loc.
0520	begin observations					
0525	Leach's Petrel	1				
0525	BFA	1	follow			
0548	Sooty Shear	1	NW			
0557	RTTB	1			0549 2 BFA flushed	
0608	Arctic Tern	2	NW			
0627	RTTB	2			0610 small (50) school of squid broke surface flushed - pink squid small - 3"	
0642	Sooty Shear	1	NW			
0745	Sooty Shear	1			seemed curious about ship - flew slowly, flapping occasionally - seemed very large - clear whitish central part of underwing but somehow bird looked very different.	
0755	Sooty Shear	1				
0758	Leach's P	1				
0808	Leach's S.P.	2			0800 3 BFA at stern try to chum. They grab + run, try to steal from other.	
0817	Arctic Tern	1			" "	
0900	Arctic Tern	1				
0903	Leach's St. Pet.	1				
0905	Leach's S. P.	1				
0908	Sooty (?) Shear.	1				
0910	Leach's S. P.	1			distant	
0915	Leach's S. P.	1				
0919	Leach's S. P.	1				
0955	Tern	1			seen by watch (George) id by capt. (?)	
1002	R.T. Tropicbird	2	circle ship			
1017	Leach's P	1				
1043	bird	1				
1052	Leach's P.	1			may have been jaeger - vanished in thin air	
1105	Leach's P	1				
1108	Leach's P	1				
1110	Leach's P	6			1100 BFA has rt wingtip beat up - may have been broken at wrist - primary feathers whitened and frayed spread out, very loose flock almost ran over him - white with fine long red spine	
1118	Leach's P	1				
1130	RTTB	1				
1132	Leach's P.	1				
1140	Leach's P	1				
1150	Sooty Shear	1	NW			
1230	Leach's S. P.	1			1200 5 BFA reported by watch	
1259	bird	1			1300 3 BFA	
1300	Leach's St. Pet.	1				
1305	Leach's St. Pet.	1				
1312	Laysan Alb.	1				
1313	Leach's St. Pet.	1			circles ship then follows	

SW
SE
NE

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 27 April 1965
Pg. # 2

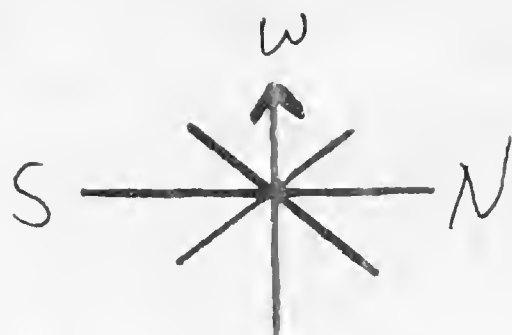


time	species	#	dir.	hgt.	remarks	loc.
1319	Leach's St. Pet.	1	W			
1337	Leach's St. Pet.	1			goes right to the group of 3 BFA, 1 Laysan A. when those land together	
1359	Sooty Shear	1	✓			
1400	Leach's P	1			1403 - 7 BFA + 1 Laysan	
1405	Leach's P	1				
1435	Leach's P	1	NW			
1445	Leach's P	1	NW			
1500	Sooty Shear	1	✓		flushed?	
1552	Arctic Tern	2	NW			
1557	Leach's P	1				
1558	shear/petrel	1				
1559	Leach's P	2	NW			
1602	Leach's St. Pet.	1				
1608	Leach's St. Pet.	1				
1610	Leach's St. Pet.	1				
1612	Leach's St. Pet.	1				
1616	LSP	1				
1625	shearwater/petrel	1			distant	
1638	Bulwer's Petrel	2	NW			
1639	Bulwer's Pet.	1	NW			
1644	Bulwer's Petrel	1	NW			
1648	Leach's St. Pet.	1	SE			
1651	LSP	1	NW			
1701	LSP	1			1700 hours 9 BFA + 1 LA follow	
1712	LSP	1	W		(one possible hybrid - much white)	
1716	Arctic Tern	1	N			
1740	Leach's P	1	NW			
1830	end observations					

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 28 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0300	Leach's St. Pet.	1			Feeding around light by ship	
0513	begin observations				still dark	
0555	Arctic Tern	2	N			
0630	BFA	1			first one arrives in rain shower	
0658	Leach's St. Pet.	1			going "like the shirt-tails of hell" as Bob Downer would say	
0711	Arctic Tern	1	N			
0723	Leach's St. Pet.	1			0800 still one BFA	
0812	Leach's P.	2				
0842	Leach's P.	2				
0851	Arctic Tern	2				
0852	Leach's P.	1				
0937	Leach's P.	1				
0950	Leach's P.	1			1000 2 BFA	
1040	Leach's St. Pet.	1			1100 3 BFA	
1131	Leach's St. Pet.	1				
1203	Leach's P.	1				
1209	Leach's P.	1				
1212	Leach's P.	1				
1300	shear/petrel	1	light - mangle		1300 catch fine mahimahi at full throttle	
1540	Leach's St. Pet.	1			Wedgetail	
1545	Leach's St. Pet.	1			1500 2 BFA	
1547	shear/petrel	1			distant 1600 3 BFA	
1600	Leach's St. Pet.	1				
1603	Bonin Island Petrel	1	NE		good look, I've banded wing-streamered over 2000 VH	
1633	WTTB	1				
					1630 4 BFA	
1855	end observations				1830 4 BFA	

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 29 Apr 65
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0545	begin observations					
0632	Leach's P	1	N			
0636	Sooty Shear	1	N			
0642	Dark Rumped P.	1			gorgeous - came by very close + doubled back for second look. Thick dark underwing edges + dark back	
0648	Sooty Shear	1	N			
0658	Sooty Shear	1	NW			
0725	Sooty Shear	1	NW			
0730	Sooty Shear	1	NW			
0740	Arctic Tern	3	N			
0745	Leach's P	1				
0750	BFA	1	follow			16/10
0753	Arctic Tern	2	N			
0819	Leach's St. Pet.	1	NE			
0830	Sooty(?) Tern	1	S		distant	
0830	Shear/Petrel	1	W		"	
0907	Leach's St. Pet.	2				
0945	LSP	4			messing around our stern as we're stopped for Hydro Sta.	
1011	Leach's P	1			1000 1 BFA	
1030	Leach's P	2	NW			
1100	Leach's P	1				
1115	RTTB	1				
1120	Leach's P	2	NW		pink-flashed 1145 1 BFA	
1123	Phalarope	1	W		getting blown something fierce	
1143	Leach's P.	1	NW			
1236	LSP	1				
1313	Sooty Shear	4	NNW			
1315	Shear/Petrel	1	N		distant	
1319	Arctic(?) Tern	1	N		described by watch (Walt)	
1328	LSP	2				
1330	LSP	2				
1359	LSP	1	N			
1414	Sooty Shear	3	NW			
1416	Leach's P	1	NW			
1434	Leach's P.	1	NW			
1447	Sooty Shear	3	NW			
1615	Shear/Petrel	1	SSE			
1641	♂ Frigatebird	1				
1645	Bird	1			Termite says jaeger but circling high when I saw him	
1647	LSP	4				
1707	Sooty Shearw.	3	NW			
1712	LSP	2				
1737	LSP	1	N			
1755	Sooty Shear	1	N			

1530 Albatross back with us
he's molting primaries -
probably 1, 2, or 3 on each side
flaps more than wind calls for.

1630 Either this a new 'tross or swift molter
All primaries seem p. + a.f. (white rump)

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 29 Apr 65
Pg. # 2

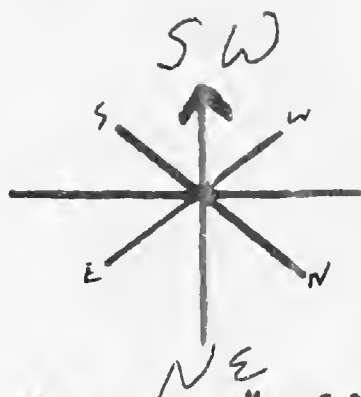


time	species	#	dir.	hgt.	remarks	loc.
1758	sooty Shear	1	N			
18						
1808	Wedgetail	1			1808 2 BFA	
1812	Frigate	1			light	
1815	Sooty Shear	1	✓			
1840	Leach S.P.	1				
1855	Pom Jaeger	1	N		nice twisted central retrices	
1900	end observations					

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 30 Apr 65
Pg. # 1



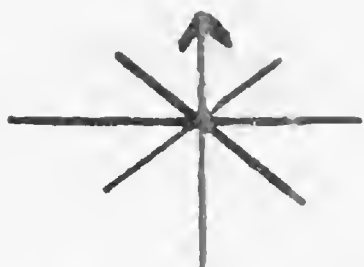
time	species	#	dir.	hgt.	remarks	loc.
0500	wedgetail	1			seen by George	
0545	begin observations					
0624	Sooty Tern	1	NE			
0631	Sooty Tern	1	NE			
0642	Sooty Tern	1	NE			
0648	Sooty Tern	1	NE			
0649	wedgetail	1	NE			
0652	Sooty Tern	3	NE			
	Common Noddy	1				
0657	Sooty Tern	1	SE			
	Common Noddy	1				
0710	Sooty Tern	1				
0715	Sooty Tern	2	NE			
	Common Noddy	1				
0720	Sooty Tern	2	E			
0723	RFB					
0725	Sooty Tern	4				
0725	RFB	1				
0726	BFA					
0728	Noddy Tern	1	follow			
0729	RFB	1				
0745	Noddy Tern	1				
0748	shear/petrel	1				
0750	Noddy Tern	2				
0752	Noddy Tern	1				
0803	Leach's P	1				
0807	Frigate	1				
0808	Frigate	2	♀			
0808	wedgetail	1				
0809	Bulwer's P	1			light	
0809	Sooty Tern	1				
0811	Noddy Tern	1				
0812	Sooty Tern	3+			feeding	
	Frigate	1				
	RFB	1				
	shear/petrel	3+				
0820	Noddy Tern	7			travelling	
0822	Frigate	1				
	RFB	3+				
0825	wedgetail	1			light	
0826	RFB	1				
0830	wedgetail	2			light	
0831	Noddy Tern	1				
0832	RFB	1				
0833	Noddy Tern	3				
0834	wedgetail	2				
0835	Sooty Tern	1				

40 sight

70 birds

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 30 Apr 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
0835	RFB	3				
0835	Wedgetail	2				
0840	Noddy Tern	1				
	Wedgetail	1				
	Shear/Petrel	1				
0841	RFB	2				
0843	Wedgetail	4				
0844	Tern ?	1				
0845	Wedgetail	1				
0846	Wedgetail	2				
0848	Wedgetail	1				
0850	Wedgetail	2				
0851	Wedgetail	2				
0852	Sooty Tern	10				
	Wedgetail	70			feeding	
0853	Sooty Tern	1				
	Noddy Tern	1				
	Wedgetail	1				
0854	RFB	1				
0855	Sooty Tern	2				
0859	Sooty Tern	1				
	Wedgetail	3				
0900	Wedgetail	1				
0902	Wedgetail	3				
0903	Wedgetail	3				
0904	Wedgetail	2				
0905	Wedgetail	4				
0905	Wedgetail	2				
0906	Noddy Tern	1				
0910	RFB	1				
0914	Frigate	1				
	Sooty Tern	25				
	RFB	4			feeding	
	BB	25				
0915	Wedgetail	3				
0915	Wedgetail	1				
0916	Wedgetail	1				
0917	Sooty Tern	2				
0918	Wedgetail	1				
0919	Wedgetail	2				
0920	Wedgetail	4				
0925	Wedgetail	3				
0930	Wedgetail	2				
0931	Bulwers	1				

1 northern dark phase
flying high - fairly fast wingbeats - small

feeding

feeding

35 sight

164 birds
165

SI-MNH-958e
7-28-64



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

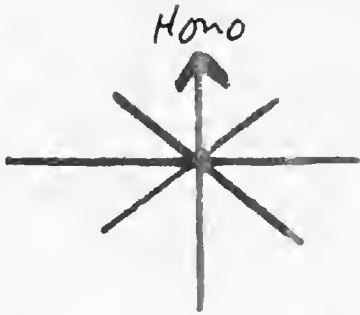
DATE 30 Apr 65
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
0932	Wedgetail	3				
0943	Sooty Tern	1				
0944	Wedgetail	2				
0947	RFB	1				
0954	Frigate	1				
0955	Sooty Tern	2				
0955	Sooty Tern	1				
0958	Sooty Tern	3				
0959	Wedgetail	1				
0959	Sooty Tern	1				
1007	Sooty Tern	1				
	Common Noddy	1				
1010	Com. Noddy	1				
1011	Wedgetail	2				
1012	Sooty Shearw	1				
1012	Com. Noddy	2				
1014	Great Frigate	1				
1016	Com. Noddy	1				
1020	Com. Noddy	1				
1025	Sooty Tern	1				
1033	Com. Noddy	1				
1035	Com. Noddy	2				
1036	Wedgetail	1				
1036	Sooty Shear	1			Termite?	
1037	Bulwer's Petrel	1				
1038	Sooty Shear	1				
1039	SS	1			I saw this one well	
1039	Com. Noddy	2				
1041	SS	2	N			
1043	SS	2	N			
1044	SS	1	N			
1044	Com. Noddy	1	N			
1045	SS	2	N			
1046	SS	1	N			
1046	Com. Noddy	1	E			
1048	st. Petrel	1	on water			
1048	Sooty Tern	2	E			
1049	Com. Noddy	1	E			
1050	Sooty Tern	3				
1050	SS	1	N			
1054	Sooty Tern	4				
1054	Com. Noddy	2				
1055	Sooty Tern	1				
1056	Wedgetail	1				
1056	Com. Noddy	12			not really a flock	
1058	Red-footed Booby	1			Ad.	47 sight
1059	Sooty Shearw.	1	N			
1100	Sooty Tern	1				
	Com. Noddy	1				80 bird

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

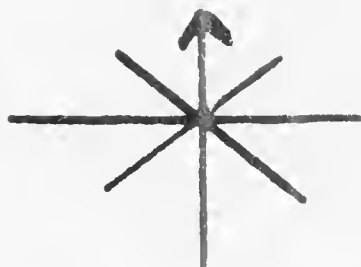
DATE 30 April 1965
Pg. # 4



time	species	#	dir.	hgt.	remarks	loc.
1101	Wedgetail	1				
1103	Sooty Shearw.	2	N ✓			
1103	Com. Noddy	1	E			
1105	Com. Noddy	30 ± 5			big milling bunch	
1106	Red-footed Booby	1				
1108	Wedgetail	2				
1109	Com. Noddy	2				
1110	Sooty Tern	3	NW			
1111	Sooty Tern	1				
1113	Com. Noddy	1				
1114	Sooty Tern	1				
1115	Red-footed Booby	1			ad	
1115	SS	1	N ✓			
1116	Red-footed Booby	1			ad.	
1116	Com. Noddy	2				
1117	Red-foot	1			ad.	
1117	Com. Noddy	4			not together	14/6
1119	Com. Noddy	2				
1120	Noddy	3				
1121	SS	3	✓			
1123	Noddy	8			not a flock	N 5
1124	SS	4	✓			
1125	SS	1	✓			
1125	RFB	1			sub adult	
1125	SS	3	✓			
1126	Noddy	4				
1126	Sooty Tern	1				
1128	Noddy	4				
1131	Sooty Tern	1				
1132	RFB	1				
1133	Noddy	3				
1134	RFB	1				
1135	Noddy	1				
1137	Sooty Tern	2				
1145	Sooty Tern	1				
1150	Noddy	56			travelling	
	Sooty Tern	1				
	Wedgetail	1				
1151	Sooty Tern	1				
	Wedgetail	1				
	Noddy	1				
1155	Sooty Tern	2				
1205	Sooty Tern	1				93
1207	Sooty Tern	4				
1210	Sooty Tern	1				
1212	Sooty Tern	4			1/2 x 7/156 6th 7th 4	173
1213	RFB	1				

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 30 Apr 65
Pg. # 5



time	species	#	dir.	hgt.	remarks	loc.
1217	Sooty Tern	2				
1218	Frigate	1				
1219	Sooty Tern	7			travelling	
1220	Noddy	1				
1220	end observations					

5 sight

11

DATE

23 Apr 65

Time at sunrise = 0538 Position at sunrise = 10°02'N 148°05'W

Time at sunset = 1805 Position at sunset = 11°50'N 148°03'W

Miles traveled from 0000 hours to sunrise = 52

Miles traveled from sunrise to sunset = 108

Miles traveled from sunset to 2400 hours = 59

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

24 Apr 65

Time at sunrise = 0535 Position at sunrise = 13°35'N 148°00'W

Time at sunset = 1809 Position at sunset = 15°50'N 147°57'W

Miles traveled from 0000 hours to sunrise = 46

Miles traveled from sunrise to sunset = 135

Miles traveled from sunset to 2400 hours = 50

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

25 Apr 65

Time at sunrise

= 0529

Position at sunrise

= 17°34'N 147°58'W

Time at sunset

= 1814

Position at sunset

= 19°55'N 147°57'W

Miles traveled from 0000 hours to sunrise

= 54

Miles traveled from sunrise to sunset

= 141

Miles traveled from sunset to 2400 hours

= 52

TIME OF FIX

TYPE OF FIX

LONGITUDE

LATITUDE

1.

2.

3.

4.

5.

6.

DATE

26 Apr 65

Time at sunrise

= 0524

Position at sunrise

= 21°54'N 147°56'W

Time at sunset

= 1818

Position at sunset

= 24°09'N 147°54'W

Miles traveled from 0000 hours to sunrise

= 67

Miles traveled from sunrise to sunset

= 135

Miles traveled from sunset to 2400 hours

= 63

TIME OF FIX

TYPE OF FIX

LONGITUDE

LATITUDE

1.

2.

3.

4.

5.

6.

DATE

27 Apr 65

Time at sunrise = 0520 Position at sunrise = 26°03'N 148°03'W

Time at sunset = 1828 Position at sunset = 25°29'N 150°03'W

Miles traveled from 0000 hours to sunrise = 51

Miles traveled from sunrise to sunset = 153

Miles traveled from sunset to 2400 hours = 62

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

28 Apr 65

Time at sunrise = 0532 Position at sunrise = 25°04'N 151°31'W

Time at sunset = 1845 Position at sunset = 24°59'N 154°10'W

Miles traveled from 0000 hours to sunrise = 25

Miles traveled from sunrise to sunset = 143

Miles traveled from sunset to 2400 hours = 53

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

29 Apr 65Time at sunrise = ⁰⁵⁵¹ Position at sunrise = 25° 01' N 156° 22' WTime at sunset = ¹⁸⁵⁵ Position at sunset = 23° 29' N 156° 59' W

Miles traveled from 0000 hours to sunrise = 67

Miles traveled from sunrise to sunset = 125

Miles traveled from sunset to 2400 hours = 4

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

30 Apr 65Time at sunrise = ⁰⁵⁵⁷ Position at sunrise = 21° 57' N 157° 02' WTime at sunset = ¹²²⁰ Position at sunset = 21° 15' N 157° 50' W

Miles traveled from 0000 hours to sunrise = 49

Miles traveled from sunrise to sunset = 67

Miles traveled from sunset to 2400 hours =

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

11 Apr 65

Time at sunrise = 0900 Position at sunrise = 21°54' N 159°36' W
Time at sunset = 1850 Position at sunset = 20°55' N 157°52' W
Miles traveled from 0000 hours to sunrise =
Miles traveled from sunrise to sunset = 114
Miles traveled from sunset to 2400 hours = 47

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.			
2.			
3.			
4.			
5.			
6.			

DATE

12 April 1965

Time at sunrise = 0613 Position at sunrise = 19°19' N 157°00' W
Time at sunset = 1843 Position at sunset = 17°27' N 157°00' W
Miles traveled from 0000 hours to sunrise = 73
Miles traveled from sunrise to sunset = 112
Miles traveled from sunset to 2400 hours = 51

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.			
2.			
3.			
4.			
5.			
6.			

DATE 13 Apr 65

Time at sunrise 0614 = Position at sunrise = 15°38'N 157°00'W
Time at sunset 1841 = Position at sunset = 13°34'N 156°58'W
Miles traveled from 0000 hours to sunrise = 58
Miles traveled from sunrise to sunset = 124
Miles traveled from sunset to 2400 hours = 37

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.			
2.			
3.			
4.			
5.			
6.			

DATE 14 Apr 65

Time at sunrise 0617 = Position at sunrise = 11°43'N 156°53'W
Time at sunset 1833 = Position at sunset = 10°53'N 155°43'W
Miles traveled from 0000 hours to sunrise = 74
Miles traveled from sunrise to sunset = 87
Miles traveled from sunset to 2400 hours = 54

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.			
2.			
3.			
4.			
5.			
6.			

DATE 15 Apr 65

Time at sunrise = 0606 Position at sunrise = 10°00'N 154°05'W

Time at sunset = 1828 Position at sunset = 12°04'N 154°02'W

Miles traveled from 0000 hours to sunrise = 56

Miles traveled from sunrise to sunset = 124

Miles traveled from sunset to 2400 hours = 60

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE 16 Apr 65

Time at sunrise = 0602 Position at sunrise = 14°01'N 153°58'W

Time at sunset = 1832 Position at sunset = 16°06'N 154°01'W

Miles traveled from 0000 hours to sunrise = 57

Miles traveled from sunrise to sunset = 125

Miles traveled from sunset to 2400 hours = 61

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE 17 Apr 65

Time at sunrise ⁰⁵⁵⁸ = Position at sunrise = $18^{\circ}10'N$ $153^{\circ}57'W$
Time at sunset ¹⁸³⁵ = Position at sunset = $20^{\circ}17'N$ $153^{\circ}56'W$
Miles traveled from 0000 hours to sunrise = 63
Miles traveled from sunrise to sunset = 127
Miles traveled from sunset to 2400 hours = 51

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

DATE 18 Apr 65

Time at sunrise ⁰⁵⁵⁵ = Position at sunrise = $22^{\circ}06'N$ $154^{\circ}00'W$
Time at sunset ¹⁸³⁴ = Position at sunset = $23^{\circ}32'N$ $152^{\circ}57'W$
Miles traveled from 0000 hours to sunrise = 58
Miles traveled from sunrise to sunset = 140
Miles traveled from sunset to 2400 hours = 57

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

DATE 19 Apr 65

Time at sunrise = 0539 Position at sunrise = 23°22'N 151°03'W
Time at sunset = 1825 Position at sunset = 21°05'N 150°57'W
Miles traveled from 0000 hours to sunrise = 56
Miles traveled from sunrise to sunset = 137
Miles traveled from sunset to 2400 hours = 46

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 20 Apr 65

Time at sunrise = 0543 Position at sunrise = 19°09'N 150°59'W
Time at sunset = 1821 Position at sunset = 17°25'N 150°59'W
Miles traveled from 0000 hours to sunrise = 70
Miles traveled from sunrise to sunset = 104
Miles traveled from sunset to 2400 hours = 61

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE

21 Apr 65

Time at sunrise = 0546 Position at sunrise = 15°27'N 151°02'W
 Time at sunset = 1818 Position at sunset = 13°22'N 151°00'W
 Miles traveled from 0000 hours to sunrise = 57
 Miles traveled from sunrise to sunset = 125
 Miles traveled from sunset to 2400 hours = 41

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE

22 Apr 65

Time at sunrise = 0549 Position at sunrise = 11°37'N 150°59'W
 Time at sunset = 1811 Position at sunset = 10°50'N 149°42'W
 Miles traveled from 0000 hours to sunrise = 64
 Miles traveled from sunrise to sunset = 93
 Miles traveled from sunset to 2400 hours = 55

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

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6.

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 11 Apr 65 Total Minutes: 590 Total Miles 114

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>166</u>	<u>603</u>	<u>3.63</u>	<u>5.29</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>113</u>	<u>41</u>	<u>0</u>	<u>2</u>	<u>204</u>	<u>95</u>	<u>0</u>	<u>2</u>	<u>1.81</u>	<u>2.32</u>	<u>0</u>	<u>1.0</u>	<u>1.79</u>	<u>.83</u>	<u>0</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>3</u>	<u>0</u>	<u>3</u>	<u>3</u>	<u>0</u>	<u>3</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.03</u>	<u>0</u>	<u>.03</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>40</u>	<u>346</u>	<u>8.65</u>	<u>3.03</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>11</u>	<u>0</u>	<u>11</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>1.36</u>	<u>0</u>	<u>1.36</u>	<u>0</u>	<u>.13</u>	<u>0</u>	<u>.13</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>13</u>	<u>376</u>	<u>.11</u>	<u>6</u>	<u>337</u>	<u>.05</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 12 Apr 65 Total Minutes: 750 Total Miles 112

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>134</u>	<u>251</u>	<u>1.87</u>	<u>2.24</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>117</u>	<u>17</u>	<u>2</u>	<u>7</u>	<u>218</u>	<u>21</u>	<u>2</u>	<u>7</u>	<u>1.86</u>	<u>1.24</u>	<u>1.0</u>	<u>1.0</u>	<u>1.95</u>	<u>.19</u>	<u>.62</u>	<u>1.06</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>13</u>	<u>30</u>	<u>2.31</u>	<u>1.27</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>0</u>	<u>.01</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>2</u>	<u>1.0</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>14</u>	<u>.01</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 13 Apr 65 Total Minutes: 747 Total Miles 124

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>76</u>	<u>88</u>	<u>1.16</u>	<u>.71</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>67</u>	<u>6</u>	<u>0</u>	<u>11</u>	<u>78</u>	<u>6</u>	<u>0</u>	<u>12</u>	<u>1.16</u>	<u>1.0</u>	<u>0</u>	<u>1.09</u>	<u>.53</u>	<u>.05</u>	<u>0</u>	<u>.10</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 14 Apr 65 Total Minutes: 736 Total Miles 87

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>103</u>	<u>230</u>	<u>2.23</u>	<u>2.64</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>97</u>	<u>26</u>	<u>0</u>	<u>20</u>	<u>153</u>	<u>57</u>	<u>0</u>	<u>24</u>	<u>1.58</u>	<u>2.19</u>	<u>0</u>	<u>1.2</u>	<u>1.76</u>	<u>.65</u>	<u>0</u>	<u>.27</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>8</u>	<u>75</u>	<u>9.37</u>	<u>.86</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>5</u>	<u>96</u>	<u>.06</u>	<u>4</u>	<u>91</u>	<u>.05</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 15 Apr 65 Total Minutes: 742 Total Miles 124

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>63</u>	<u>360</u>	<u>5.71</u>	<u>2.90</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>48</u>	<u>13</u>	<u>0</u>	<u>1</u>	<u>95</u>	<u>42</u>	<u>0</u>	<u>1</u>	<u>1.98</u>	<u>3.23</u>	<u>0</u>	<u>1</u>	<u>.77</u>	<u>.34</u>	<u>0.01</u>	

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.02</u>	<u>0</u>	<u>.02</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>14</u>	<u>252</u>	<u>18.0</u>	<u>2.03</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>12</u>	<u>291</u>	<u>.10</u>	<u>7</u>	<u>254</u>	<u>.06</u>

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345

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 16 Apr 65 Total Minutes: 750 Total Miles 125

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>106</u>	<u>398</u>	<u>3.75</u>	<u>3.18</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>73</u>	<u>19</u>	<u>1</u>	<u>8</u>	<u>130</u>	<u>55</u>	<u>1</u>	<u>9</u>	<u>1.78</u>	<u>6.84</u>	<u>1</u>	<u>1.13</u>	<u>1.04</u>	<u>.44</u>	<u>.01</u>	<u>.07</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.02</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>28</u>	<u>250</u>	<u>8.93</u>	<u>2.0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>2</u>	<u>1.0</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>12</u>	<u>277</u>	<u>.10</u>	<u>8</u>	<u>240</u>	<u>.06</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 17 Apr 65 Total Minutes: 757 Total Miles 127

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>83</u>	<u>690</u>	<u>8.31</u>	<u>5.43</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>64</u>	<u>14</u>	<u>1</u>	<u>14</u>	<u>196</u>	<u>64</u>	<u>1</u>	<u>16</u>	<u>3.06</u>	<u>4.57</u>	<u>1</u>	<u>1.14</u>	<u>1.54</u>	<u>.50</u>	<u>.01</u>	<u>.13</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>1.5</u>	<u>2.0</u>	<u>1.0</u>	<u>.02</u>	<u>.02</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>22</u>	<u>486</u>	<u>22.09</u>	<u>3.83</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>4</u>	<u>1.33</u>	<u>.03</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>10</u>	<u>591</u>	<u>.08</u>	<u>7</u>	<u>548</u>	<u>.06</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 18 April 65 Total Minutes: 759 Total Miles 140

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>49</u>	<u>159</u>	<u>3.24</u>	<u>1.14</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>38</u>	<u>6</u>	<u>5</u>	<u>2</u>	<u>60</u>	<u>9</u>	<u>5</u>	<u>2</u>	<u>1.58</u>	<u>1.5</u>	<u>1</u>	<u>1</u>	<u>.43</u>	<u>.06</u>	<u>.04</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>10</u>	<u>94</u>	<u>9.4</u>	<u>.67</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>3</u>	<u>102</u>	<u>.07</u>	<u>1</u>	<u>90</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 19 Apr 65 Total Minutes: 766 Total Miles 137

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>38</u>	<u>57</u>	<u>1.5</u>	<u>.34</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>26</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>32</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1.23</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>.23</u>	<u>.01</u>	<u>.01</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>12</u>	<u>4.0</u>	<u>.09</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>5</u>	<u>1.67</u>	<u>.04</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>11</u>	<u>.01</u>	<u>1</u>	<u>11</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 20 Apr 65 Total Minutes: 758 Total Miles 104

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>37</u>	<u>75</u>	<u>2.03</u>	<u>.72</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>29</u>	<u>2</u>	<u>2</u>	<u>5</u>	<u>36</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>1.24</u>	<u>.2</u>	<u>1</u>	<u>1.2</u>	<u>.35</u>	<u>.04</u>	<u>.02</u>	<u>.06</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>.02</u>	<u>0</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>5</u>	<u>34</u>	<u>6.8</u>	<u>.33</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>2</u>	<u>36</u>	<u>.02</u>	<u>1</u>	<u>31</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 21 Apr 65 Total Minutes: 752 Total Miles 125

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>40</u>	<u>67</u>	<u>1.68</u>	<u>.54</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>27</u>	<u>6</u>	<u>1</u>	<u>1</u>	<u>37</u>	<u>10</u>	<u>1</u>	<u>1</u>	<u>1.37</u>	<u>1.67</u>	<u>1</u>	<u>1</u>	<u>.30</u>	<u>.08</u>	<u>.01</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>13</u>	<u>29</u>	<u>2.23</u>	<u>.23</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>17</u>	<u>.01</u>	<u>1</u>	<u>17</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 22 Apr 65 Total Minutes: 742 Total Miles 93

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>29</u>	<u>78</u>	<u>2.69</u>	<u>.84</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>21</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>29</u>	<u>3</u>	<u>3</u>	<u>4</u>	<u>1.38</u>	<u>1.5</u>	<u>1</u>	<u>1.33</u>	<u>.31</u>	<u>.03</u>	<u>.03</u>	<u>.04</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.01</u>	<u>0</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>5</u>	<u>43</u>	<u>8.6</u>	<u>.46</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.02</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>3</u>	<u>49</u>	<u>.03</u>	<u>1</u>	<u>29</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 23 Apr 65 Total Minutes: 747 Total Miles 108

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>52</u>	<u>206</u>	<u>3.96</u>	<u>1.91</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>42</u>	<u>3</u>	<u>14</u>	<u>1</u>	<u>59</u>	<u>3</u>	<u>17</u>	<u>1</u>	<u>1.40</u>	<u>1.00</u>	<u>1.21</u>	<u>1.00</u>	<u>.55</u>	<u>.03</u>	<u>.16</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>10</u>	<u>145</u>	<u>14.5</u>	<u>1.34</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>4</u>	<u>145</u>	<u>.04</u>	<u>4</u>	<u>145</u>	<u>.04</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 24 Apr 65 Total Minutes: 754 Total Miles 135

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>27</u>	<u>68</u>	<u>2.52</u>	<u>.50</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>21</u>	<u>4</u>	<u>3</u>	<u>0</u>	<u>22</u>	<u>4</u>	<u>3</u>	<u>0</u>	<u>1.05</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>.16</u>	<u>.03</u>	<u>.02</u>	<u>0</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>5</u>	<u>42</u>	<u>8.4</u>	<u>.31</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>3</u>	<u>39</u>	<u>.02</u>	<u>2</u>	<u>31</u>	<u>.01</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 25 Apr 65 Total Minutes: 765 Total Miles 141

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>19</u>	<u>23</u>	<u>1.21</u>	<u>1/6</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>14</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>16</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1.15</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>.11</u>	<u>.01</u>	<u>0</u>	<u>0</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>3</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>.02</u>	<u>.01</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 26 Apr 65 Total Minutes: 774 Total Miles 135

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>23</u>	<u>31</u>	<u>1.35</u>	<u>1.23</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>16</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>18</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>1.13</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>.13</u>	<u>0</u>	<u>0</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>2.0</u>	<u>2.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>2</u>	<u>1.0</u>	<u>.01</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 27 Apr 65 Total Minutes: 788 Total Miles 153

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>65</u>	<u>85</u>	<u>1.31</u>	<u>.55</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>53</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>69</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>1.30</u>	<u>0</u>	<u>0</u>	<u>1.33</u>	<u>.45</u>	<u>0</u>	<u>0</u>	<u>.03</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>4</u>	<u>4</u>	<u>0</u>	<u>6</u>	<u>6</u>	<u>0</u>	<u>1.5</u>	<u>1.5</u>	<u>0</u>	<u>.05</u>	<u>.05</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>6</u>	<u>8</u>	<u>1.33</u>	<u>.06</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>6</u>	<u>.01</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 28 Apr 65 Total Minutes: 793 Total Miles 143

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>23</u>	<u>30</u>	<u>1.30</u>	<u>.21</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>19</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>24</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1.26</u>	<u>0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>1.01</u>	<u>0</u>	<u>0</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>1.01</u>	<u>0</u>	<u>1.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>5</u>	<u>1.67</u>	<u>.03</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 29 Apr 65 Total Minutes: 784 Total Miles 125

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>48</u>	<u>70</u>	<u>1.46</u>	<u>.56</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>38</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>57</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.5</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.44</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>4</u>	<u>7</u>	<u>1.75</u>	<u>.06</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>2</u>	<u>1.0</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SI-MNH-955a
Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 30 Apr 65 Total Minutes: 383 Total Miles 67

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>170</u>	<u>499</u>	<u>2.94</u>	<u>7.45</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>65</u>	<u>40</u>	<u>0</u>	<u>3</u>	<u>182</u>	<u>143</u>	<u>0</u>	<u>3</u>	<u>2.80</u>	<u>3.58</u>	<u>0</u>	<u>1.0</u>	<u>2.72</u>	<u>2.13</u>	<u>0</u>	<u>.04</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>84</u>	<u>273</u>	<u>3.25</u>	<u>4.07</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>22</u>	<u>0</u>	<u>22</u>	<u>7</u>	<u>35</u>	<u>0</u>	<u>30</u>	<u>5</u>	<u>1.59</u>	<u>0</u>	<u>1.36</u>	<u>5.0</u>	<u>52</u>	<u>0</u>	<u>.45</u>	<u>.07</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>9</u>	<u>1.13</u>	<u>.13</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>7</u>	<u>205</u>	<u>.10</u>	<u>4</u>	<u>133</u>	<u>.06</u>

PS 4 Thompson
Ely Sibley
Winters Sibley
Amerson King

B. C. F. Townsend Cromwell April 1965 Cruise

The April 1965 Townsend Cromwell cruise, from 11 April to 1 May, was the 14th of a series of 16 cruises conducted by the U. S. Fish and Wildlife Service's Bureau of Commercial Fisheries covering a fixed grid to the south, north, and east of the high Hawaiian Islands for the purpose of determining variations in the water types and currents of this area.

This was the 13th cruise in which Pacific Project personnel have taken part, maintaining daily sunrise to sunset bird observations. Observations on this cruise totalled 244.0 hours. In addition Project personnel aided in recording weather observations and in recording bathythermographs. Project personnel were Vincent Hoeman and Warren King.

Warren B. King
Research Assistant
Pacific Project

General Discussion

The substantial increase in numbers of flocks between this month's total (78) and the total for April 1964 (27) is somewhat balanced by the difference in mean flock size. (29 birds per flock this month and 69 in April 1964).

Direct migrants accounted for 13.5 o/o of the month's total (4068), and wintering birds accounted for an additional 10 o/o. The remainder is accounted for by birds breeding in the Central Pacific (71.5 o/o) and by unidentified birds (5 o/o). The large buildup in numbers of direct migrants, predominantly Sooty Shearwaters, of the first week of April 1964 was felt to have come during the in-port period between the March and April cruises this year, so that direct migrants did not attain anything near the 49 o/o level they did on the March 1964 cruise. March and April 1965's total numbers compare quite favorably.

Overall distribution of the predominant species (Sooty Tern, Wedgetailed Shearwater) varied slightly between this month and April 1964. Greater concentrations were found along the 154° W leg down to 10° N and relatively fewer birds were seen around Oahu and in the southeastern corner, although these two areas were still fairly active.

Of special interest was the sighting of two mixed flocks of Leach's Petrels and Bulwer's Petrels. New high totals were recorded for Leach's Petrel (297) and for Pomarine Jaeger (60), the latter enjoying the most widespread distribution noted for the species as well. Blue-gray Noddies were sighted for the first time. Significant sightings included a possible New Zealand Shearwater, a possible Herald's Petrel, a gull, two long-tailed

Jaegers, 27 Arctic Terns, a Bonin Island Petrel, 2 Pale-footed Shearwaters, and 3 Dark-rumped Petrels. Mottled Petrels were observed in springtime for the first time on these cruises.

The data should be comparable for those of previous cruises.

Species Account

Black-footed Albatross

The range and numbers of this species were very similar this month to those of April 1964. Birds were seen only in the northern quarter of the area although one bird was attracted south to 17° N on the 151° W leg. Numbers decreased from March's total of 76 to 26 this month. One bird was banded on 12 April.

Laysan Albatross

Three birds were seen this month, all in the northern quarter of the area. One followed the ship for five hours. Three were seen in April 1964 in the same general area.

Wedgetailed Shearwater

The 519 Wedge-tails seen in April were concentrated in the western half of the area, over half of which were within 50 miles from the high Hawaiian Islands. A small secondary concentration in the southwestern corner was chiefly of southern dark phase birds. This secondary concentration of dark phase birds was found in the southeastern corner in April 1964. Numbers increased 16 o/o from March, a rise of questionable significance. All of the northern birds had distinctly fresh breeding plumage.

New Zealand Shearwater

One bird possibly of this species was observed closely on 13 April. The presence of this species in the area is still suspected but has not been confirmed.

Sooty Shearwater

This species continued its spring migration this month, with 507 birds recorded compared with 382 in March. The first week of April, when the peak of the spring 1964 migration took place in this area, was not included in this month's period of observation. It may well have been the migration peak this spring as well as last. Several birds were seen taking part in feeding flocks, but most were flying swiftly and directionally to the northwest.

Newell's Shearwater

Most of the 26 birds seen in April were spread over the southeast and central portions of the area. No concentration was noted. Only 12 were seen in April 1964.

Christmas Island Shearwater

Four individuals were seen, two between Kauai and Oahu on 11 April.

Pale-footed Shearwater

Two birds were recorded in April, both heading north. This species was unrecorded last spring but its presence in the area was suspected.

Mottled Petrel

Ten individuals were observed in April, all heading north in a manner similar to Sooty Shearwater. This species presence in the central Pacific was not suspected last year.

Kermadec Petrel

One bird, a dark phase, was seen on 20 April. This is the first spring (March-June) sighting of this species in the area.

Dark-rumped Petrel

Three were seen in April, all under good light conditions. Two were in the southeast corner and the third was 200 miles north of the high Hawaiian Islands.

Juan Fernandez Petrel

All of the 21 birds seen this month were in the southeastern corner. Most had splotchy plumage, indicating the beginning of molt in this species. Numbers seen were consistent with the low totals noted for Jan-April in both 1964 and 1965.

Herald's Petrel

One bird observed at close range but in poor light on 19 April may have been this species.

Cook's Petrel

One was seen on 24 April toward the southeastern corner of the area. A substantial increase over the January-April low is expected in May.

Bonin Island Petrel

One bird was seen in good light on 28 April, 250 miles north of the high Hawaiian Islands. This species occurs only rarely in the BCF area. The possibility of confusion with the similar Cook's Petrel make positive identification difficult under any other than optimum observation conditions.

Bulwer's Petrel

The spring migration of this species into the BCF area has begun. Most of the 96 individuals seen this month were found in the western half of the area, and generally south of the high Hawaiian Islands. This distribution pattern is similar to April 1964's but the numbers seen this month indicate that the migration is further underway than it was at the same time last year.

Of interest was the observation of two flocks of Bulwer's Petrels and Leach's Petrels, one on 17 April of 20 Leach's and three Bulwer's and again on 22 April of five Leach's and two Bulwer's. The birds were not actually seen feeding but both flocks were fairly tightly packed. This was the first time in 13 cruises that these two species have been observed flocking together in this manner.

Leach's Petrel

An all time high of 297 birds was recorded this month. Numbers were distributed over the entire area, evidently in a random manner. Many were flying rather directionally to the north. This peak in numbers corresponds with a similar peak recorded in April 1964 as the birds migrate north for the beginning of their breeding season.

For notes on two flocks involving numbers of this species see the preceeding Bulwer's Petrel remarks.

Two were collected.

Red-tailed Tropicbird

The 19 birds seen this month were distributed again in a relatively random manner. The slight increase in numbers from 13 in March is probably of no significance.

White-tailed Tropicbird

Three of the eight seen in April were within 20 miles of Kauai. The rest were distributed randomly over the area.

Blue-faced Booby

One of the five seen this month was at 17° N; the others were at the extreme southern end of the area, where most of the birds of this species have been seen. Numbers were consistent with past months.

Brown Booby

Five birds were seen in a feeding flock just 10 miles north of Oahu on 30 April.

Red-footed Booby

Only one of the 46 seen in April was more than 50 miles from Oahu. It was an immature which came aboard at 18° N during the day. It was banded, notes were taken on its plumage and soft part colors, and it was released.

Great Frigatebird

Out of 26 birds 16 were seen within 100 miles of the high Hawaiian Islands this month. All were within 300 miles of land. Larger numbers of Frigates have been seen in the past two months (19, 26) than in 1964 (4, 2). The difference is felt to be significant, but no explanation is readily forthcoming.

Arctic Tern (?)

Twenty-seven birds probably Arctic Terns but possibly common Terns were observed heading north, usually in groups of two, in April. A similar northward migration was noted in April 1964. The birds were seen often to

feed by hovering, diving from heights in excess of 30 ft, and flying off from the surface of the water. Several times birds were seen for the first time rising from the water as if they had been sitting on it, but no bird was actually observed sitting on the water.

Common Noddy

Of the 420 Noddies seen in April, 22 were seen on three separate days in excess of 50 miles from land. One flock of five was found at 15° N, over 200 miles from nearest land. Observation of Noddies this far from land, while not unprecedented, is nevertheless unusual.

Sooty Tern

Numbers decreased 22 o/o from March's total of 2133 to 1655 in April. Greatest concentrations occurred around the high Hawaiian Islands and along the 154° W leg south to 10° N. The difference between April's and March's totals was due largely to the relative lack of birds (97) seen north of Oahu this month. Such a concentration was evident in April 1964 (750 birds). A shift to more southerly feeding grounds on the part of Sooties this April would explain this inconsistency.

Fairy Tern

Numbers remained constant from March to April, 24 this month and 23 last month. The complete absence of this species from the area in April 1964 is puzzling in light of the numbers seen in 1965. Two-thirds of the birds seen this month were within 100 miles of the high Hawaiian Islands.

Blue-grey Noddy

At least one and possibly two more Blue-grey Noddies were seen shortly after leaving Port Allen, Kauai. This is the first sighting of this species on a Cromwell cruise, even though the birds were seen in an area previously unsampled by the ship.

Pomarine Jaeger

A new high total of 60 Pomarine Jaegers was recorded in April. Many of these were seen at a considerable distance from land, up to 500 miles. Most were headed north. Several were observed to chase birds in feeding flocks. Wedge-tailed Shearwaters, Sooty Terns, Arctic Terns, Red-tailed Tropicbirds, and even a Frigatebird were among their "victims". Many had fine adult breeding plumage with prominent twisted central rectrices.

Long-tailed Jaeger

Two small jaegers, one a light phase and the second an intermediate phase, which had very prominent pointed central rectrices in excess of four inches were presumed to be this species. In addition, 10 more were termed jaeger species. Several or most of these may have been long-tailed Jaegers but their central rectrices were not as well developed.

Red ? Phalarope

Four phalaropes, probably Red Phalaropes, were seen in April, the tail end of the spring northward migration which reached its peak in March in 1964 and 1965.

Gull species

On 22 April a bird which could only have been a gull was described in detail by the best informed of the crewmen on watch. It was medium sized and presumably in adult plumage.

April 1965 - BCF Cruise

TABLE I

<u>Date</u>	<u>Minutes of Observation</u>	<u>Miles Covered</u>
April 11	590	114
12	750	112
13	747	124
14	736	87
15	742	124
16	750	125
17	757	127
18	759	140
19	766	137
20	758	104
21	752	125
22	742	93
23	747	108
24	754	135
25	765	141
26	774	135
27	788	153
28	793	143
29	784	125
30	303	67
Total	14,637	2,420
Average	732	121

TABLE II

<u>Date</u>	<u>Total Birds</u>	<u>Total Sightings</u>	<u>Birds Sighting</u>	<u>Birds Mile</u>	<u>Flocks</u>	<u>Total Birds in Flock</u>
April 11	603	166	3.63	5.29	13	376
12	251	134	1.87	2.24	1	14
13	88	76	1.16	.71	0	0
14	230	103	2.23	2.64	5	96
15	360	63	5.71	2.90	12	291
16	398	106	3.75	3.18	12	277
17	690	83	8.31	5.43	10	591
18	159	49	3.24	1.14	3	102
19	57	38	1.50	.34	1	11
20	75	37	2.03	.72	2	36
21	67	40	1.68	.54	1	17
22	78	29	2.69	.84	3	49
23	206	52	3.96	1.91	4	145
24	68	27	2.52	.50	3	39
25	23	19	1.21	.16	0	0
26	31	23	1.35	.23	0	0
27	85	65	1.31	.56	1	6
28	30	23	1.30	.21	0	0
29	70	48	1.46	.56	0	0
30	499	170	2.94	7.45	7	205
Total	4068	1351	53.85	37.55	78	2255
Average	203.4	67.6	2.69	1.88	3.9	112.8

TABLE III

<u>Date</u>	<u>Procellariiformes</u>	<u>Tropicbirds</u>	<u>Terns</u>	<u>Boobies</u>	<u>Frigatebirds</u>
April 11, 65	204	3	346	15	1
12	218	0	30	1	2
13	78	1	0	0	0
14	153	1	75	0	0
15	95	2	252	1	0
16	130	2	250	0	2
17	196	3	486	0	4
18	60	0	94	0	0
19	32	1	12	0	5
20	36	2	34	0	1
21	37	0	29	0	0
22	29	1	43	2	0
23	59	1	145	1	0
24	22	1	42	0	0
25	16	3	1	1	0
26	18	2	2	0	0
27	69	6	8	0	0
28	24	1	5	0	0
29	57	1	7	0	2
30	182	0	273	35	9
Total	1715	31	2134	56	26
Average	85.8	1.6	106.7	2.8	1.3

TABLE IV

Procellariiformes Breakdown

Date	Black-footed Albatross	Laysan Albatross	Wedge-tailed Shearwater	Sooty Shearwater	Newell's Shearwater	Christmas Island Shearwater
11 April 65	1	0	95	80	3	2
12	1	0	21	178	0	0
13	0	0	6	36	0	0
14	0	0	57	44	0	0
15	0	0	42	20	6	1
16	0	0	55	31	1	1
17	0	0	64	17	3	0
18	4	1	9	11	2	0
19	3	1	1	6	1	0
20	1	0	4	10	5	0
21	0	0	10	5	4	0
22	0	0	3	7	0	0
23	0	0	3	3	0	0
24	0	0	4	2	1	0
25	0	0	1	1	0	0
26	0	0	0	2	0	0
27	9	1	0	8	0	0
28	4	0	0	0	0	0
29	2	0	1	18	0	0
30	1	0	143	28	0	0
Total	26	3	519	507	26	4

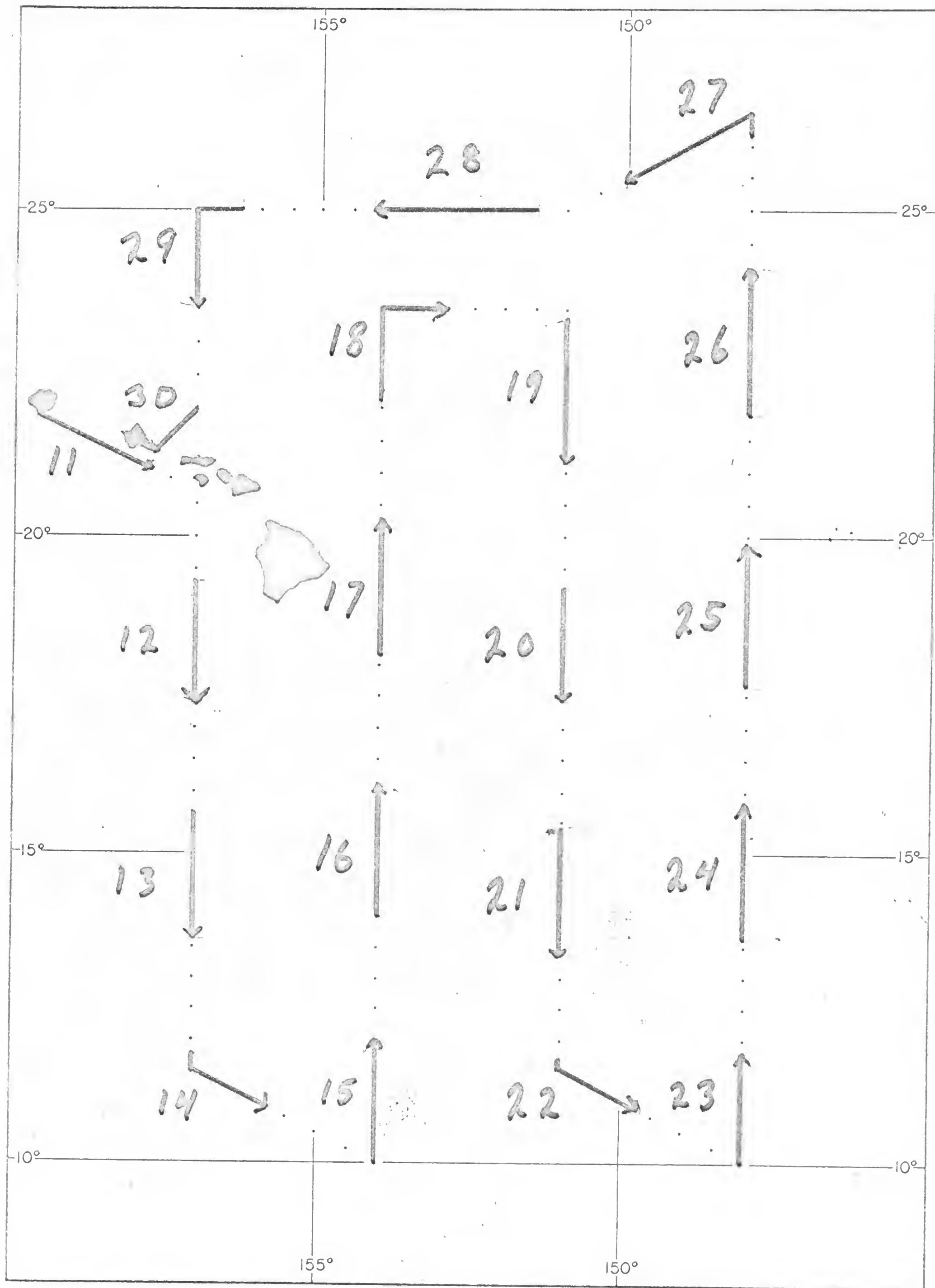
TABLE IV (con't)

Procellariiformes Breakdown

Date	Mottled Petrel	Juan Fernandez Petrel	Bulwer's Petrel	Leach's Storm Petrel	Miscellaneous and unidentified Procellariids
11 April 65	0	0	2	13	8
12	1	0	7	8	2
13	0	0	12	12	12
14	0	0	24	24	4
15	0	0	1	10	15
16	1	0	9	22	10
17	2	0	16	28	66
18	5	0	2	5	21
19	0	0	1	18	1
20	1	0	6	7	2
21	0	1	1	5	11
22	0	2	4	9	4
23	0	16	1	13	23
24	0	2	0	10	3
25	0	0	0	11	3
26	0	0	3	12	1
27	0	0	4	45	2
28	0	0	0	18	2
29	0	0	0	32	4
30	0	0	3	2	5
Total	10	21	96	304	199

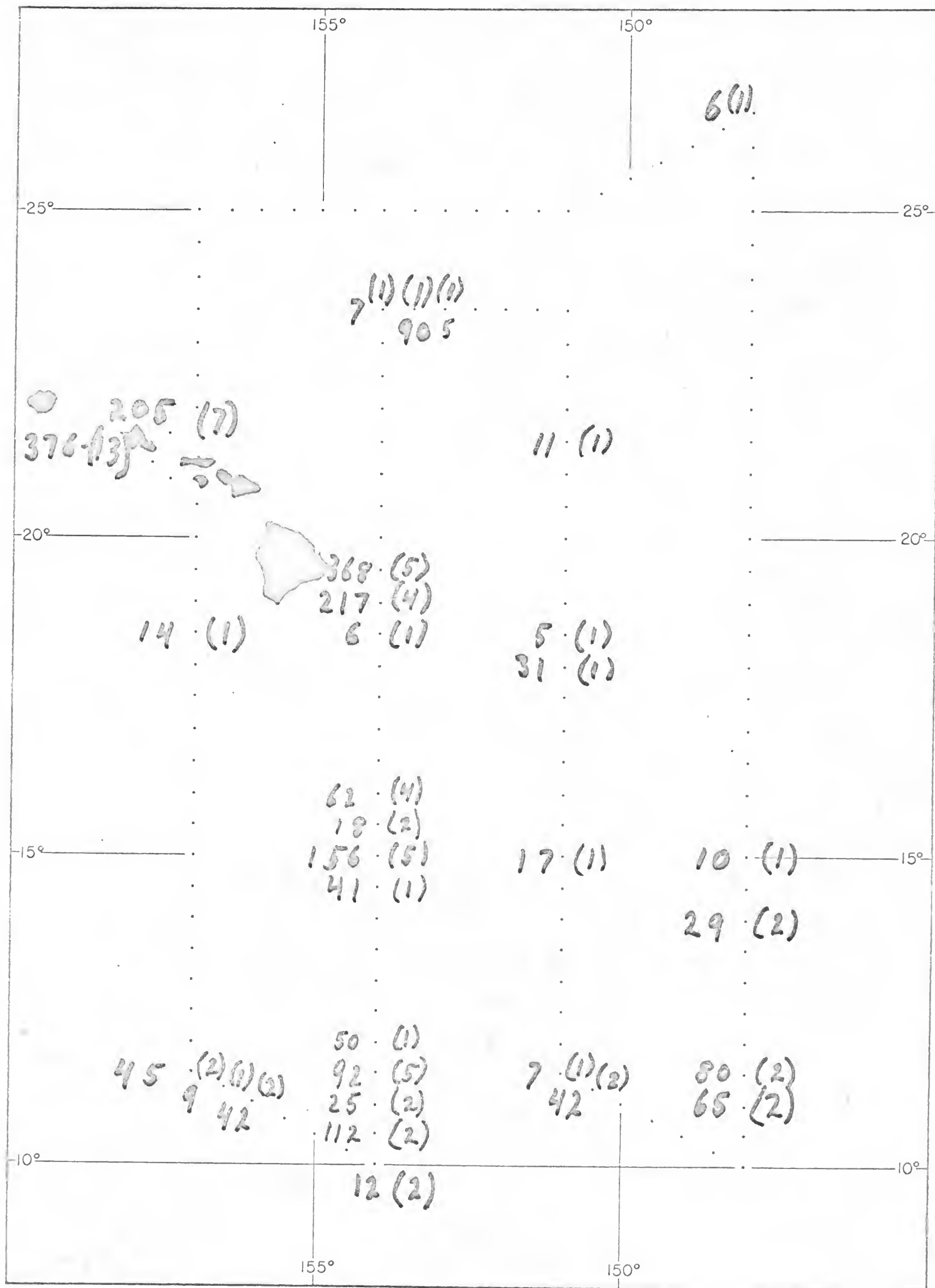
April 1965

Daylight observation locations

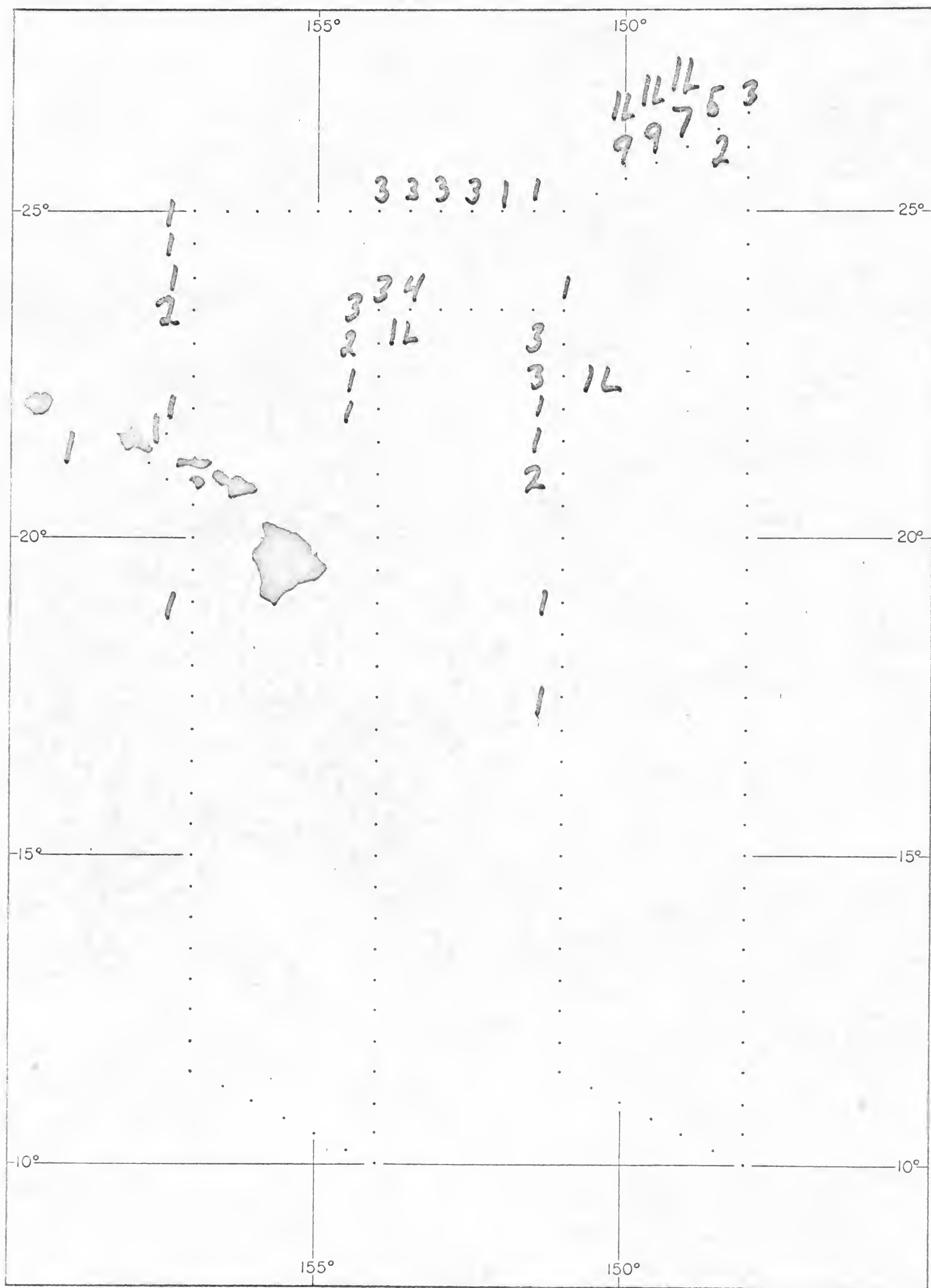


April 65

Birds in flocks 2255 (78)

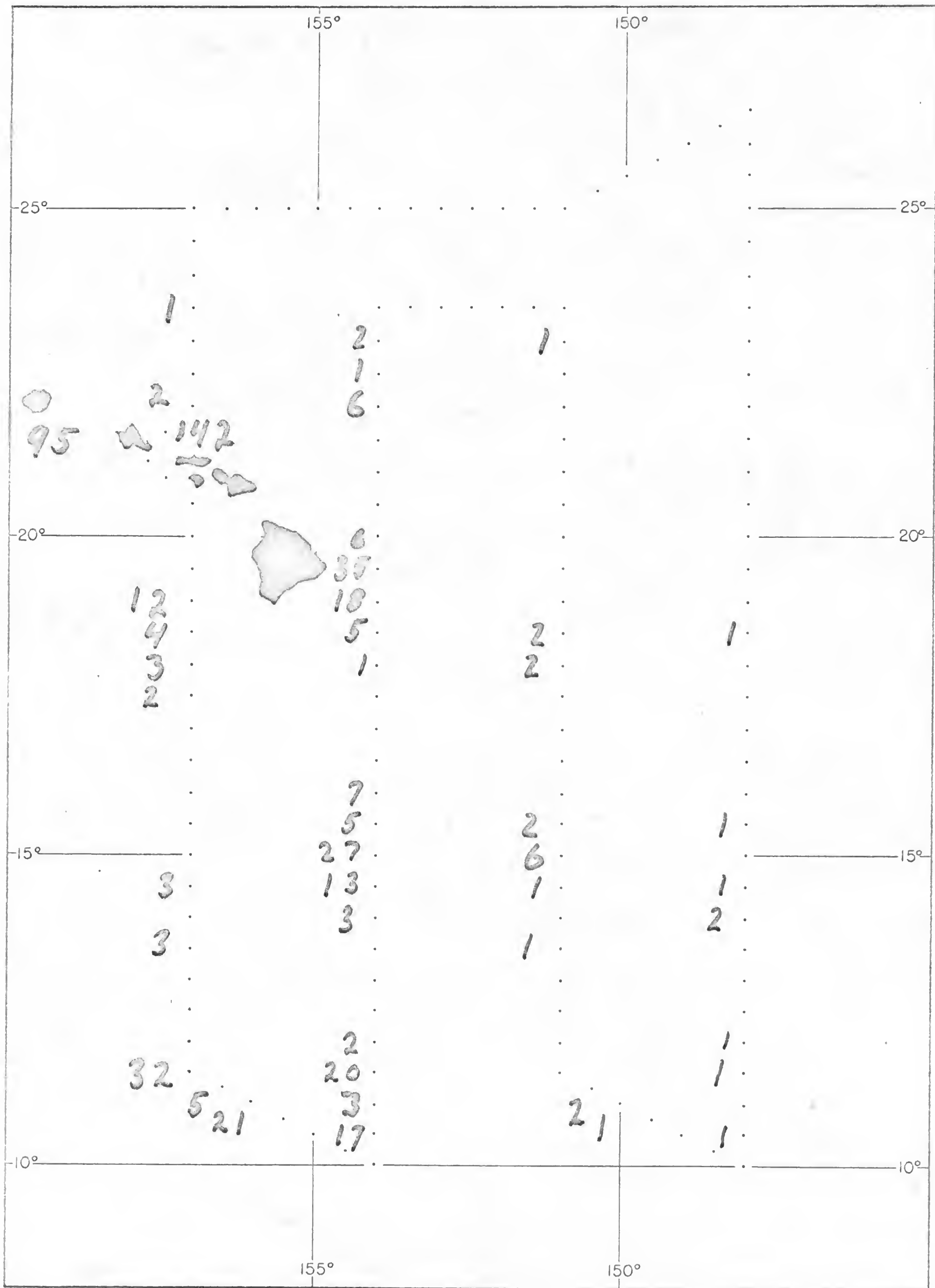


April 65
 Black-footed Albatross 26
 Laysan Albatross 3



April 65

Wedge tailed Shearwater 519



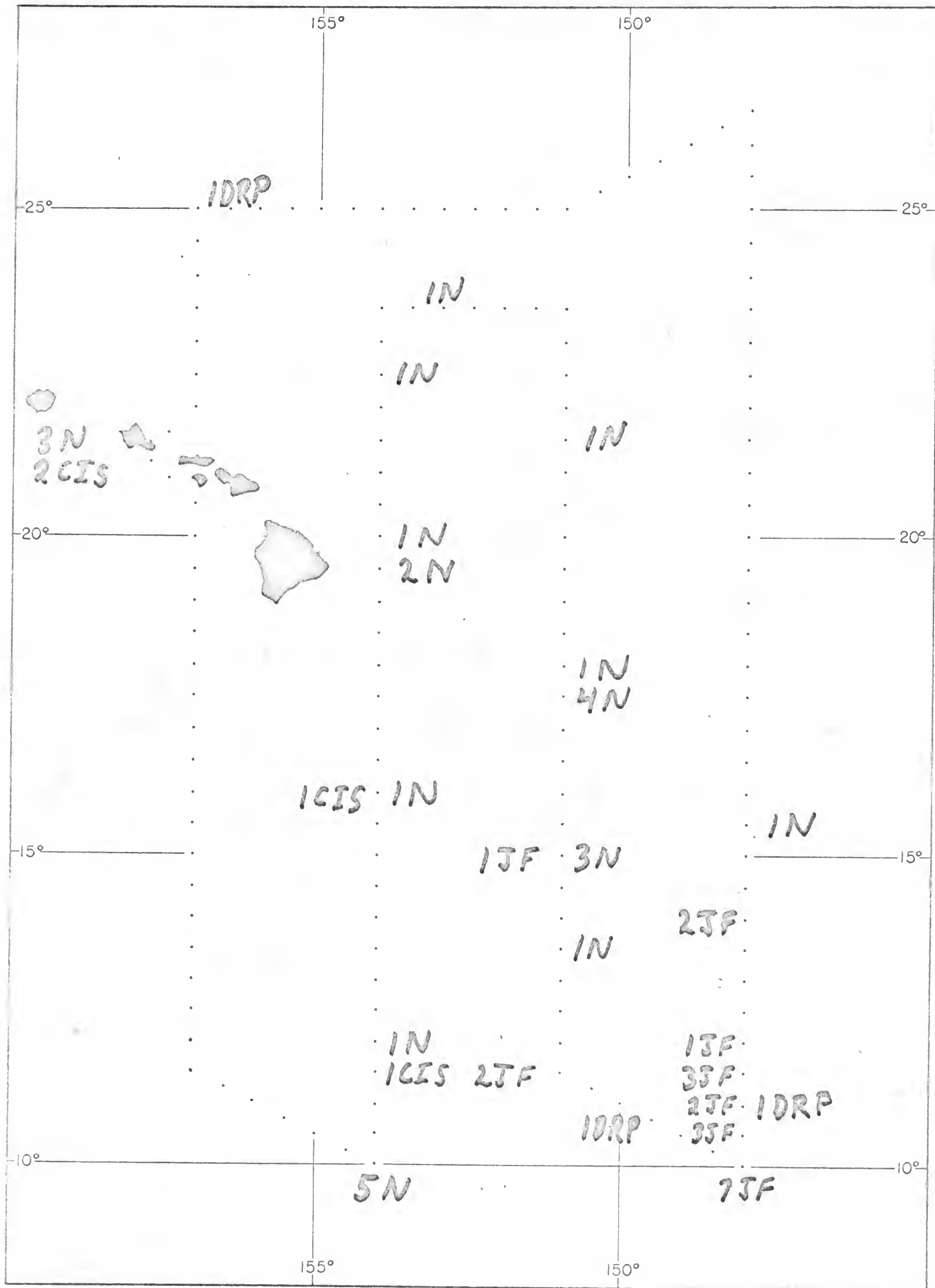
April 65

Newell's Shearwater 26

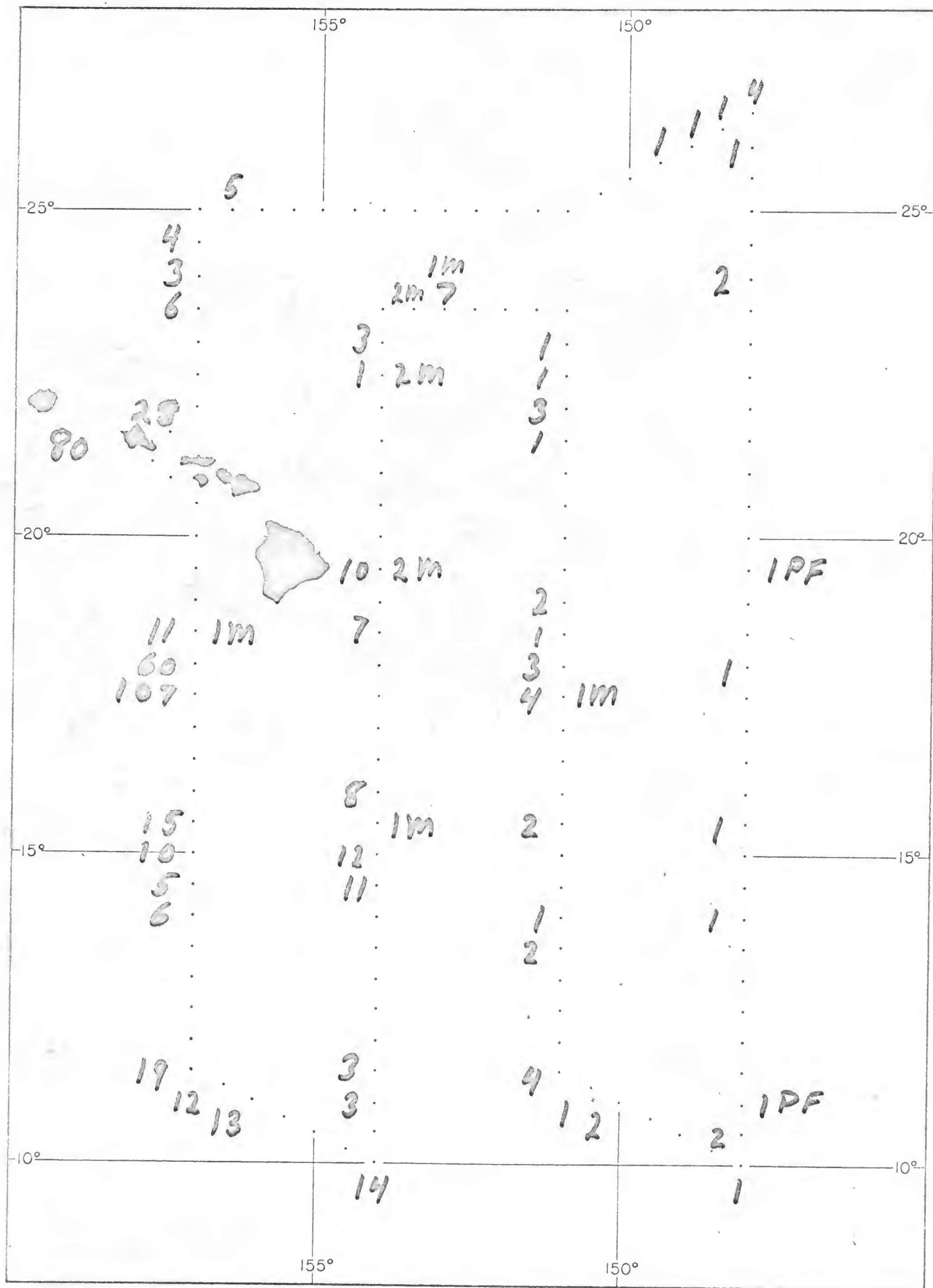
Christmas Island Shearwater 4

Dark-rumped Petrel 3

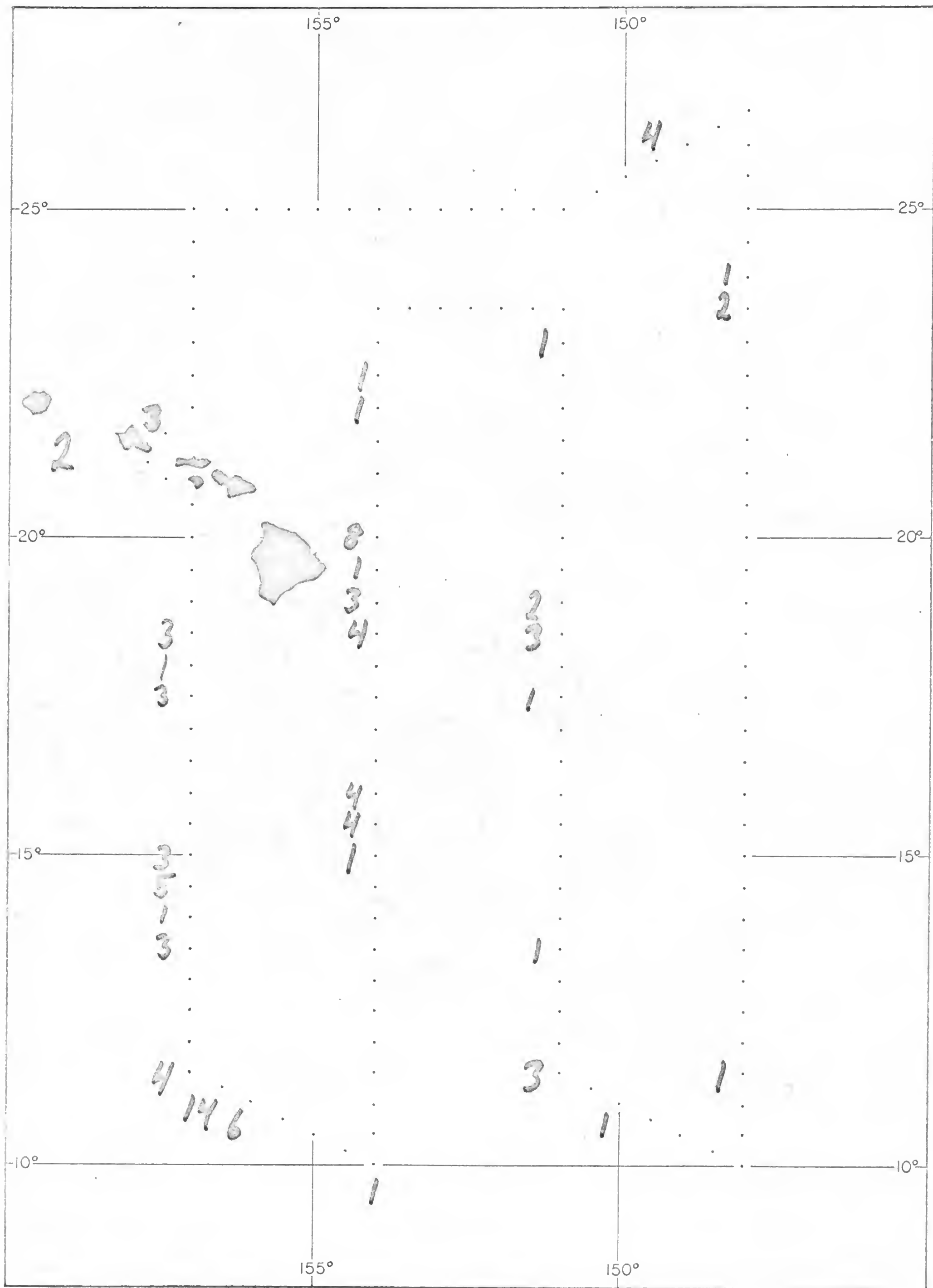
Juan Fernandez Petrel 21



April 65
 Sooty Shearwater 507
 Pale-footed Shearwater 2
 Mottled Petrel 10

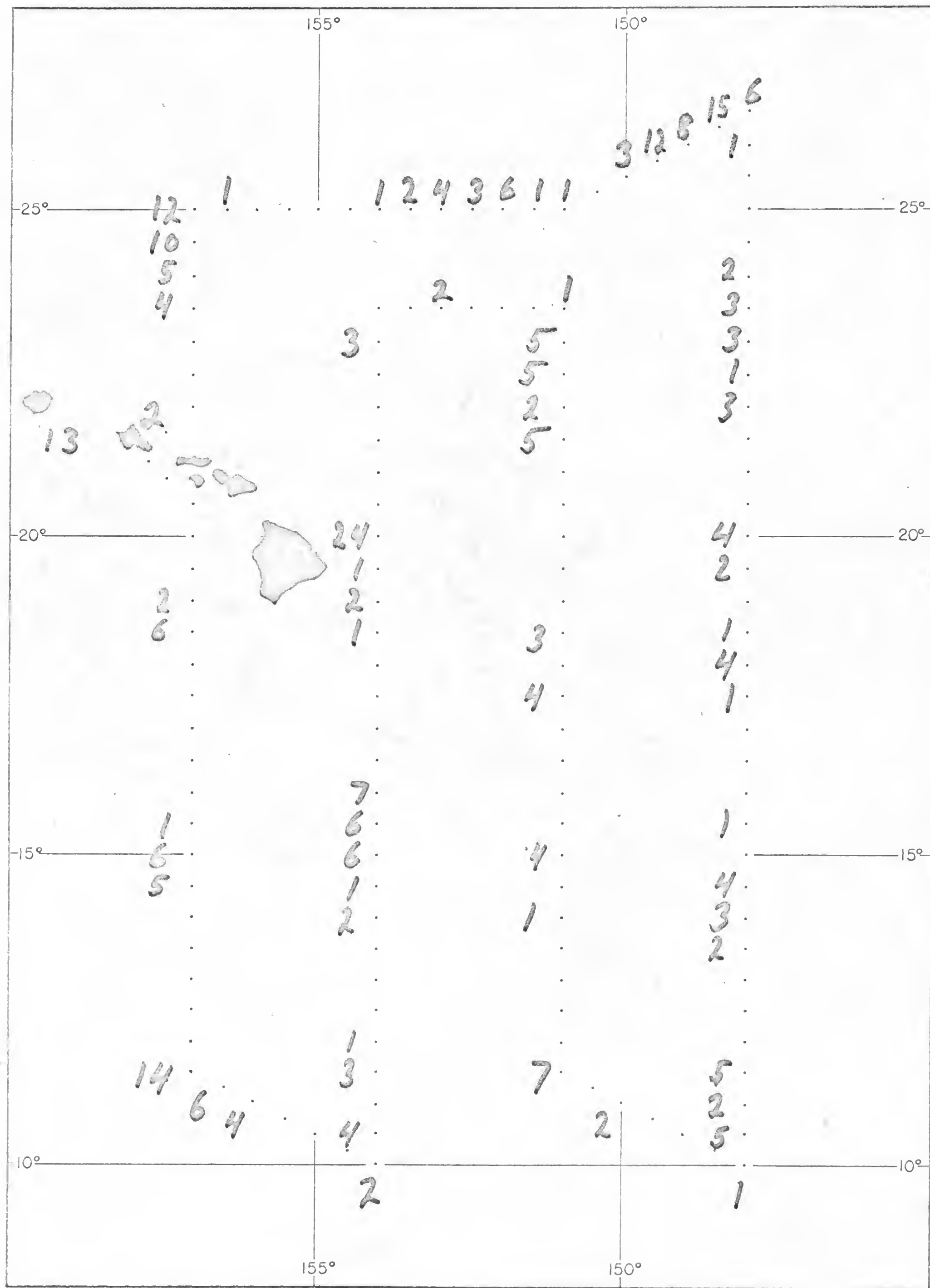


April 65
Bulwer's Petrel 96

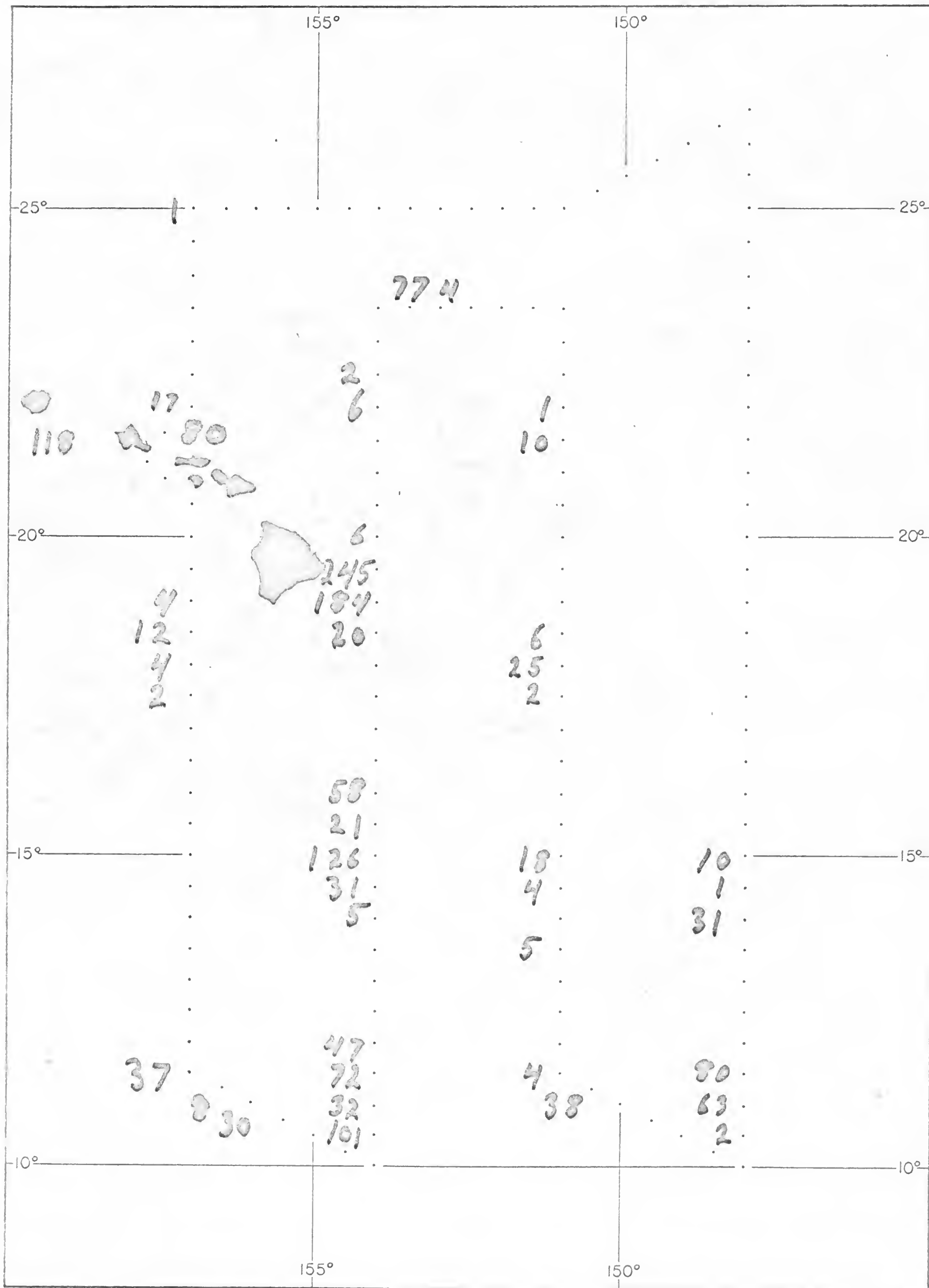


April 65

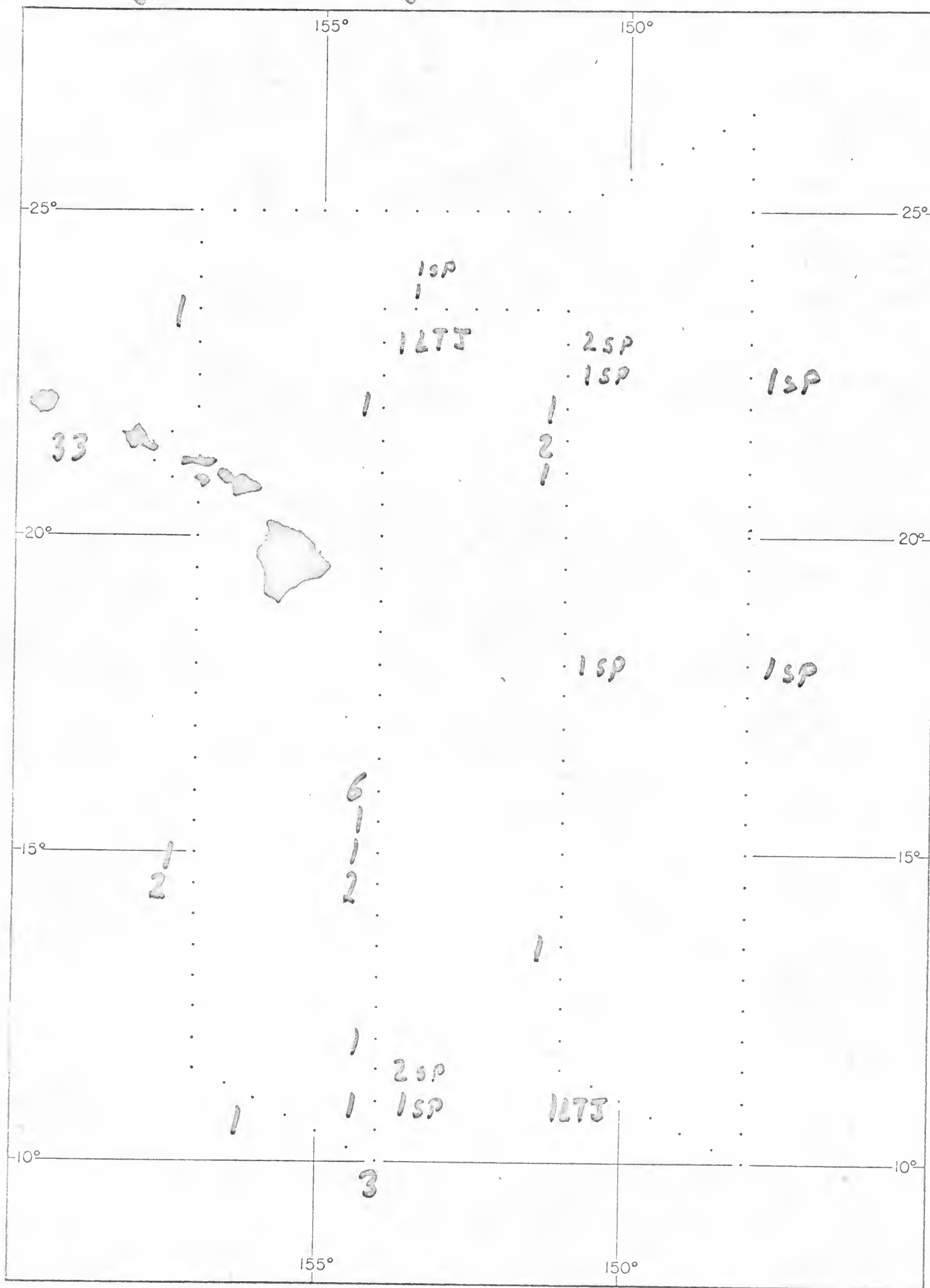
Leach's and storm petrel species 304



April 65
Sooty Tern 1655



April 65
 Pomarine Jaeger 60
 jaeger species 10
 Long-tailed Jaeger 2



SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 11 Apr 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100																
0200																
0300																
0400																
0500																
0600																
0700																
0800																
0900	21 54	159 36														
1000	21 47	159 26														
1100	21 41	159 16														
1200	21 35	159 04														
1300	21 30	158 53														
1400	21 25	158 43														
1500	21 19	158 33														
1600	21 13	158 23														
1700	21 08	158 11														
1800	21 00	158 00														
1900	20 54	157 50														
2000	20 48	157 38	02		10	1015.1	24.0	19		2		111	24.9	04	100	SE-12
2100	20 47	157 34														
2200	20 40	157 19														
2300	20 35	157 12														
2400	20 31	157 11														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

$$\frac{2}{3} = \frac{x}{6}$$

$$3x = 12$$

$$\frac{2}{3} = \frac{x}{10}$$

$$3x = 10$$

$$\frac{5}{12}$$

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE

12 Apr 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 19	157 06														
0200	20 08	157 03	03		10	1014.3	23.5	19		3		60-6-5	24.8	22	50	5-12
0300	19 55	157 01														
0400	19 43	157 01														
0500	19 32	157 01														
0600	19 21	157 00														
0700	19 11	157 00														
0800	19 01	156 58	03		10	1012.9	23.3	20		6		120-8-10	23.7	28	120	5-12
0900	18 55	156 58														
1000	18 47	156 57														
1100	18 42	156 57														
1200	18 33	156 58														
1300	18 23	156 59														
1400	18 11	157 00	02		10	1013.1	23.8	20		8		110-8-7	24.1	19	100	5-12
1500	17 59	157 01														
1600	17 49	157 01														
1700	17 38	157 01														
1800	17 27	157 01														
1900	17 27	157 00														
2000	17 17	156 59	02		10	1012.9	24.8	22		8		110-10-6	24.1	20	120	5-12
2100	17 10	156 58														
2200	16 58	156 58														
2300	16 46	156 59														
2400	16 36	157 00														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 13 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 28	157 01													
0200	16 15	157 01	01	10	1013.8	24.8	22		7		110-8-5	24.5	21	110	5-12
0300	16 03	157 01													
0400	15 59	157 01													
0500	15 52	157 00													
0600	15 41	157 00													
0700	15 30	157 00													
0800	15 19	157 00	02	10	1014.3	22.9	22		8		120-6.5	24.6	17	120	5-12
0900	15 08	157 00													
1000	14 57	157 00													
1100	14 46	157 00													
1200	14 35	157 00													
1300	14 33	156 59													
1400	14 26	156 59	01	10	1014.3	24.0	23		7		120-6.5	24.7	12	120	5-12
1500	14 14	156 58													
1600	14 02	156 58													
1700	13 50	156 58													
1800	13 40	156 58													
1900	13 30	156 58													
2000	13 18	156 58	02	10	1014.5	25.8	23		3		130-6.5	25.6	13	140	5-12
2100	13 10	156 57													
2200	13 00	156 57													
2300	12 58	156 57													
2400	12 57	156 57													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 14 April 1965

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 45	157 56														
0200	12 33	156 55	03		10	1014.5	25.5	22		7		130-6-2	25.9	10	190	SE-12
0300	12 21	156 55														
0400	12 09	156 54														
0500	11 57	156 54														
0600	11 46	156 53														
0700	11 33	156 54														
0800	11 29	156 54	03		10	1014.6	25.4	23		8		130-6-3	25.4	10	190	SE-12
0900	11 29	156 54														
1000	11 29	156 55														
1100	11 20	156 57														
1200	11 29	156 54														
1300	11 22	156 41														
1400	11 17	156 31	02		10	1013.0	26.0	23		8		110-6-3	25.4	10	90	SE-12
1500	11 13	156 22														
1600	11 07	156 11														
1700	11 01	155 59														
1800	10 56	155 48														
1900	10 51	155 39														
2000	10 46	155 30	02		10	1012.2	26.0	23		8		90-6-3	25.4	12	80	SE-12
2100	10 43	155 26														
2200	10 38	155 17														
2300	10 33	155 07														
2400	10 26	154 55														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 15 April 1965

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	10 21	154 43														
0200	10 16	154 34	01		10	1011.7	25.4	22		6		100-6-3	26.1	11	80	SE-12
0300	10 10	154 25														
0400	10 04	154 17														
0500	10 00	154 05														
0600	10 00	154 05														
0700	10 02	154 05														
0800	10 14	154 04	01		10	1012.1	25.8	21		5		70-6-3	26.1	16	00	N-12
0900	10 26	154 04														
1000	10 38	154 04														
1100	10 50	154 04														
1200	11 02	154 04														
1300	11 14	154 03														
1400	11 26	154 02	01		10	1011.1	26.2	22		4		90-6-3	26.4	13	80	N-12
1500	11 30	154 02														
1600	11 33	154 02														
1700	11 46	154 02														
1800	11 59	154 02														
1900	12 10	154 02														
2000	12 22	154 02	02		10	1012.0	25.4	21		3		70-6-3	25.7	12	50	N-12
2100	12 27	154 02														
2200	12 40	154 02														
2300	12 52	154 01														
2400	13 04	154 00														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 16 Apr 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	13 01	154 00														
0200	13 09	154 00	02		10	1012.6	24.9	21		3		70-6-3	25.7	12	70	N-12
0300	13 22	154 00														
0400	13 35	153 59														
0500	13 48	153 58														
0600	14 01	153 58														
0700	14 09	153 59														
0800	14 21	153 59	03		10	1013.2	24.3	21		7		70-6-3	25.4	08	90	N-12
0900	14 34	153 59														
1000	14 37	153 59														
1100	14 48	153 59														
1200	14 59	153 59														
1300	15 11	154 00														
1400	15 23	154 00	02		25	1012.3	25.3	21		3		100-6-2	25.8	04	120	N-12
1500	15 36	154 00														
1600	15 48	154 00														
1700	16 00	154 01														
1800	16 00	154 01														
1900	16 11	154 01														
2000	16 24	154 00	02		25	1011.4	24.8	20		2		100-6-2	25.8	05	40	N-12
2100	16 30	154 00														
2200	16 42	154 00														
2300	16 54	153 59														
2400	17 07	153 59														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 17 April 1965

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	17 20	153 59														
0200	17 32	153 58	02		25	1012.1	23.5	21		2		100-6-2	24.6	06	140	N-12
0300	17 34	153 58														
0400	17 46	153 58														
0500	17 59	153 57														
0600	18 10	153 57														
0700	18 23	153 58														
0800	18 34	153 58	03		25	1013.0	23.9	21		6		180-6-2	23.8	12	190	N-12
0900	18 34	153 58														
1000	18 36	153 58														
1100	18 49	153 59														
1200	19 02	154 00														
1300	19 05	154 00														
1400	19 18	153 59	03		25	1014	25.4	21		7		150-6-4	24.2	14	200	N-12
1500	19 31	153 58														
1600	19 44	153 58														
1700	19 56	153 57														
1800	20 09	153 56														
1900	20 22	153 55														
2000	20 31	153 54	02		25	1014.8	24.1	20		7		150-6-4	24.2	10	200	N-12
2100	20 31	153 54														
2200	20 42	153 54														
2300	20 55	153 54														
2400	21 08	153 54														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 18 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	21 20	153 56													
0200	21 32	153 57	02	10	1011.4	22.9	19		8		300.6-4	23.3	16	300	N 12
0300	21 43	153 58													
0400	21 55	154 00													
0500	21 59	154 00													
0600	22 07	154 00													
0700	22 20	154 00													
0800	22 37	154 00	02	10	1012.0	22.2	17		8		280.6-4	23.0	15	300	N 12
0900	22 44	154 00													
1000	22 56	153 59													
1100	23 09	153 59													
1200	23 19	153 58													
1300	23 30	153 58													
1400	23 30	153 58	02	10	1012.9	22.1	15		7		300.6-4	22.7	16	320	N 12
1500	23 30	153 44													
1600	23 31	153 31													
1700	23 31	153 12													
1800	23 32	152 04													
1900	23 32	152 51													
2000	23 33	152 37	02	10	1013.1	21.5	15		8		300.6-4	22.7	15	340	E 12
2100	23 33	152 30													
2200	23 32	152 18													
2300	23 31	152 07													
2400	23 31	151 55													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 19 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	23 30	151 42													
0200	23 29	151 29	02	10	1013.9	20.8	15		8		300-6-4	22.6	16	330	E 12
0300	23 29	151 15													
0400	23 27	151 02													
0500	23 27	151 02													
0600	23 18	151 03													
0700	23 08	151 04													
0800	22 57	151 04	01	10	1015.4	20.9	13		3		320-6-4	21.5	6	30	S 12
0900	22 45	151 03													
1000	22 33	151 02													
1100	22 21	151 02													
1200	22 10	151 01													
1300	22 00	151 00													
1400	21 59	151 00	02	10	1015.2	22.3	17		3		330-6-4	23.4	5	50	S 12
1500	21 47	151 00													
1600	21 35	150 59													
1700	21 23	150 58													
1800	21 10	150 57													
1900	21 00	150 57													
2000	20 49	150 57	02	10	1015.9	23.0	19		5		330-6-5	23.5	12	70	S 12
2100	20 43	150 58													
2200	20 31	150 58													
2300	20 31	150 58													
2400	20 19	150 58													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 20 April 1965

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 07	150 58														
0200	19 54	150 58	50		10	1016.2	22.5	19		8		330-6-4	23.5	8	70	512
0300	19 42	150 58														
0400	19 30	150 58														
0500	19 18	150 58														
0600	19 06	150 59														
0700	19 00	150 59														
0800	18 50	151 00	02		10	1016.6	23.4	21		8		60-6-5	23.9	14	60	512
0900	18 40	151 01														
1000	18 30	151 01														
1100	18 18	151 01														
1200	18 06	151 01														
1300	17 54	151 01														
1400	17 42	151 00	01		10	1014.9	24.2	21		3		60-6-5	24.6	19	60	512
1500	17 31	150 59														
1600	17 31	150 59														
1700	17 31	150 59														
1800	17 29	150 59														
1900	17 17	150 59														
2000	17 06	150 59	01		10	1015.1	24.2	21		2		60-6-5	24.9	18	80	512
2100	16 59	150 59														
2200	16 48	150 59														
2300	16 36	151 00														
2400	16 24	151 00														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 21 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 13	151 01													
0200	16 01	151 01	03	10	1014.9	24.2	20		4		60-6-7	24.9	21	70	S 12
0300	16 00	151 00													
0400	15 50	151 00													
0500	15 36	151 01													
0600	15 24	151 02													
0700	15 13	151 03													
0800	15 03	151 04	01	10	1016.0	24.3	21		5		80-6-5	24.7	17	70	S 12
0900	14 52	151 04													
1000	14 42	151 04													
1100	14 32	151 05													
1200	14 31	151 05													
1300	14 21	151 05													
1400	14 09	151 04	01	10	1014.0	25.7	21		2		70-6-5	25.2	16	70	S-12
1500	13 57	151 03													
1600	13 46	151 02													
1700	13 36	151 01													
1800	13 25	151 00													
1900	13 15	151 00													
2000	13 03	151 00	03	10	1014.2	25.2	20		3		70-6-5	25.5	22	60	S-12
2100	12 59	151 00													
2200	12 58	151 00													
2300	12 53	151 00													
2400	12 41	151 00													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 22 April '65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 31	151 00													
0200	12 20	150 59	15	10	1014.6	24.5	20		7		60-6-6	25.6	22	60	S-12
0300	12 10	150 59													
0400	11 59	150 59													
0500	11 47	150 59													
0600	11 35	150 59													
0700	11 28	150 59													
0800	11 28	150 59	01	10	1015.2	25.4	22		1		70-6-6	25.5	22	70	S-12
0900	11 28	150 59													
1000	11 28	150 59													
1100	11 24	150 49													
1200	11 19	150 39													
1300	11 14	150 30													
1400	11 09	150 20	02	10	1013.2	25.4	22		2		70-6-6	25.2	19	50	SE-12
1500	11 05	150 10													
1600	11 00	150 00													
1700	10 56	149 52													
1800	10 51	149 43													
1900	10 47	149 35													
2000	10 42	149 26	02	10	1012.9	25.0	22		2		70-6-6	25.6	21	70	SE-12
2100	10 37	149 17													
2200	10 33	149 11													
2300	10 29	149 04													
2400	10 25	148 54													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 23 Apr. 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	10 20	148 44													
0200	10 15	148 35	03	10	1011.2	24.8	22		5		60-6-6	25.9	26	50	SE-12
0300	10 12	148 26													
0400	10 08	148 17													
0500	10 04	148 09													
0600	10 02	148 05													
0700	10 02	148 05													
0800	10 12	148 05	02	10	1013.6	25.3	21		2		60-6-6	25.2	22	60	N-12
0900	10 24	148 06													
1000	10 35	148 07													
1100	10 46	148 08													
1200	10 58	148 09													
1300	11 09	148 09													
1400	11 20	148 08	01	10	1011.3	25.2	20		1		60-6-6	25.9	22	60	N-12
1500	11 31	148 07													
1600	11 31	148 07													
1700	11 39	148 05													
1800	11 49	148 02													
1900	12 00	148 02													
2000	12 10	148 02	00	10	1013.1	24.4	20		0		60-6-6	24.8	20	80	N-12
2100	12 17	148 02													
2200	12 27	148 02													
2300	12 38	148 02													
2400	12 49	148 01													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 24 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 59	148 01													
0200	13 00	148 01	03	10	1013.4	23.9	20		3		70-6-6	24.7	17	90	N-12
0300	13 06	148 01													
0400	13 17	148 00													
0500	13 28	148 00													
0600	13 41	147 59													
0700	13 53	147 59													
0800	14 04	147 59	01	10	1015.0	24.3	20		7		70-6-5	25.0	22	80	N-12
0900	14 13	147 59													
1000	14 25	147 58													
1100	14 28	147 58													
1200	14 36	147 58													
1300	14 48	147 58													
1400	15 00	147 58	07	10	1015.0	25.0	19		2		80-6-3	25.2	16	80	N-12
1500	15 12	147 58													
1600	15 24	147 57													
1700	15 36	147 57													
1800	15 48	147 56													
1900	16 00	147 57													
2000	16 00	147 57	02	10	1016.0	24.6	19		2		80-6-3	24.6	16	80	N-12
2100	16 08	147 57													
2200	16 18	147 57													
2300	16 28	147 57													
2400	16 40	147 57													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c

3-4-64

SMITHSONIAN INSTITUTION

DIVISION OF BIRDS

AT SEA SURVEY CHART C

DATE 25 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 52	147 57													
0200	17 05	147 57	00	10	1016.2	23.8	19		6		80-6-3	24.7	16	80	N-12
0300	17 17	147 57													
0400	17 29	147 58													
0500	17 31	147 58													
0600	17 40	147 58													
0700	17 52	147 58													
0800	18 04	147 58	03	10	1018.2	23.8	19		6		80-6-5	23.3	18	80	N-12
0900	18 16	147 58													
1000	18 28	147 58													
1100	18 40	147 59													
1200	18 52	147 59													
1300	19 00	147 59													
1400	19 03	147 59	01	10	1016.9	24.8	20		4		80-6-3	23.6	16	110	N-12
1500	19 15	147 59													
1600	19 28	147 58													
1700	19 40	147 58													
1800	19 52	147 57													
1900	20 05	147 56													
2000	20 17	147 56	01	10	1019.4	23.6	18		1		80-6-3	23.6	18	90	N-12
2100	20 33	147 56													
2200	20 31	147 56													
2300	20 35	147 56													
2400	20 47	147 56													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 26 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 59	147 55													
0200	21 12	147 55	02	10	1019.2	23.1	19		1		80-6-3	23.1	14	90	N-12
0300	21 23	147 57													
0400	21 37	147 55													
0500	21 49	147 50													
0600	22 01	147 50													
0700	22 01	147 56													
0800	22 13	147 58	01	10	1021.6	23.2	19		7		140-6-3	23.2	12	150	N-12
0900	22 26	147 59													
1000	22 38	147 59													
1100	22 50	147 59													
1200	23 02	147 59													
1300	23 15	147 57													
1400	23 28	147 55	15	10	1020.2	23.7	18		7		80-6-3	23.2	12	80	N 12
1500	23 28	147 55													
1600	23 40	147 54													
1700	23 52	147 53													
1800	24 05	147 52													
1900	24 17	147 51													
2000	24 29	147 50	01	10	1020.6	22.5	18		1		120-6-3	23.3	12	120	N 12
2100	24 40	147 50													
2200	24 50	147 56													
2300	25 00	147 56													
2400	25 12	147 56													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 27 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	25 12	147 59													
0200	25 24	147 51	00	10	1020.1	21.6	18		3		120-6-3	22.5	12	120	N12
0300	25 36	147 59													
0400	25 48	148 00													
0500	25 59	148 03													
0600	26 12	148 07													
0700	26 23	148 04													
0800	26 32	148 05	03	25	1021.0	20.6	18		6		350-6-5	21.4	7	40	N-12
0900	26 26	148 15													
1000	26 21	148 26													
1100	26 16	148 37													
1200	26 09	148 47													
1300	26 03	148 58													
1400	25 57	149 10	25	5	1019.8	21.8	19		7		30-6-5	22.0	8	40	SW-12
1500	25 50	149 21													
1600	25 44	149 33													
1700	25 38	149 45													
1800	25 32	149 57													
1900	25 26	150 09													
2000	25 21	150 20	02	10	1019.2	21.2	18		7		350-6-5	22.4	8	330	SW-12
2100	25 17	150 29													
2200	25 12	150 38													
2300	25 08	150 50													
2400	25 02	151 04													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 28 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	25 02	151 04													
0200	25 02	151 04	01	10	1018.2	21.0	19		2		40-6-5	22.4	12	50	SW 12
0300	25 02	151 04													
0400	25 02	151 13													
0500	25 03	151 25													
0600	25 04	151 36													
0700	25 05	151 50													
0800	25 04	152 09	25	1/2	1019.2	20.3	19		8		50-6-6	22.1	23	30	W 12
0900	25 03	152 15													
1000	25 02	152 28													
1100	25 01	152 41													
1200	25 00	152 53													
1300	25 00	153 07													
1400	25 00	153 24	15	10	1018.4	22.2	18		7		40-8-10	22.0	28	40	W 12
1500	25 00	153 33													
1600	25 00	153 47													
1700	24 59	154 00													
1800	24 59	154 02													
1900	24 59	154 13													
2000	24 59	154 24	00	10	1019.0	21.8	18		6		40-8-8	22.1	30	40	W 12
2100	24 59	154 30													
2200	25 00	154 42													
2300	25 00	154 55													
2400	25 00	155 08													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 29 April 1965

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	25 00	155 21														
0200	25 00	155 34	00		10	1019.2	21.0	18		4		40-8-6	22.5	24	40	W-12
0300	25 00	155 47														
0400	25 00	156 01														
0500	25 00	156 12														
0600	25 01	156 24														
0700	25 01	156 37														
0800	25 00	156 49	02		10	1019.9	21.5	18		7		40-8-6	21.5	24	40	W-12
0900	25 00	157 00														
1000	25 00	157 00														
1100	24 48	157 00														
1200	24 36	157 00														
1300	24 30	157 00														
1400	24 19	157 00	02		5	1018.8	22.2	18		8		40-8-6	22.3	26	40	S-12
1500	24 08	157 00														
1600	23 57	156 59														
1700	23 46	156 59														
1800	23 34	156 59														
1900	23 29	156 59														
2000	23 22	156 58	01		10	1017.2	22.1	19		2		40-8-6	22.5	22	40	S-12
2100	23 17	156 58														
2200	23 07	156 58														
2300	22 57	156 58														
2400	22 46	156 59														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c
3-4-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA SURVEY CHART C

DATE 30 April 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	22 36	156 59													
0200	22 26	156 59	02	10	1016.4	22.9	19		1		04-8-5	22.8	22	40	S-12
0300	22 17	156 59													
0400	22 07	156 59													
0500	21 59	157 00													
0600	21 56	157 03													
0700	21 50	157 08													
0800	21 40	157 16	16	10	1016.2	23.7	20		6		06-6-5	23.3	22	70	SW-12
0900	21 31	157 23													
1000	21 23	157 31													
1100	21 15	157 38													
1200	21 15	157 47													
1215	21 15	157 50													
1300															
1400															
1500															
1600															
1700															
1800															
1900															
2000															
2100															
2200															
2300															
2400															

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS